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DEPARTMENT OF NATURAL RESOURCES AND CONSERVATION
OF THE STATE OF MONTANA

# Oil and Gas Conservation Division

Thomas L. Judge, Governor

ANNUAL REVIEW FOR THE YEAR 1973
Relating to

# OIL AND GAS

Volume 17

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Annual review for the year 1973.

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**JOHN P. MOORE**
P. O. BOX 997
CUT BANK, MONTANA 59427

Administrative Office..........325 Fuller Avenue, Helena, Montana 59601
Technical Office and Southern District Field Office..........15 Poly Drive, Billings, Montana 59101
Northern District Field Office..........218 Main Street, Shelby, Montana 59474

# Annual Review for the Year 1973

# Volume 17

## INTRODUCTION

Oil production in Montana during 1973 totaled 34,620,182 barrels. This is slightly over a two percent increase in production as compared with 1972. Favorable response to many secondary recovery programs throughout the State was the primary factor in this increased production. Seven new waterflood units for secondary recovery were approved by the Board. Due to the increased value of oil many small operators were able to upgrade their equipment and procedures resulting in additional production.

The energy shortage of 1973 caused industry and this Board to intensify their efforts toward conservation in Montana which, hopefully, will be reflected in a further increase in production during 1974.

Refinery output continued to increase during 1973. Source of the oil put through the nine refineries in the State during 1973 was as follows:

| | |
|---|---|
| Montana | 19.02% |
| Canada | 31.13% |
| Wyoming | 49.85% |

Production of natural gas increased significantly during 1973. Total production was 57,739,515 MCF representing a sixty-five percent increase over 1972. Most of this increase came from the Tiger Ridge Field of central northern Montana which went on stream in November of 1972. Additional gas reserves were established to the south and west of the Tiger Ridge area and these new wells should add considerably to the volume of natural gas produced in 1974.

There were 36 new gas discoveries and 7 new oil discoveries completed during 1973. Of 311 development wells drilled 165 found gas and 46 found oil. Total wells drilled in 1973 was 719 compared to 724 drilled in 1972.

Leasing of lands for oil and gas exploration reached an all time State high in 1973 exceeding the lease activity of 1951-1955 which followed the discovery of oil in the Williston Basin (northeastern) portion of the State.

Several multiple well programs were planned for 1974 and at least one additional major gas transmission line was planned for 1974 subject to Federal and State approval.

Inquiries and visitors to the Board increased markedly in the latter part of 1973 with many new individuals and companies showing interest in participating in future exploration in Montana.

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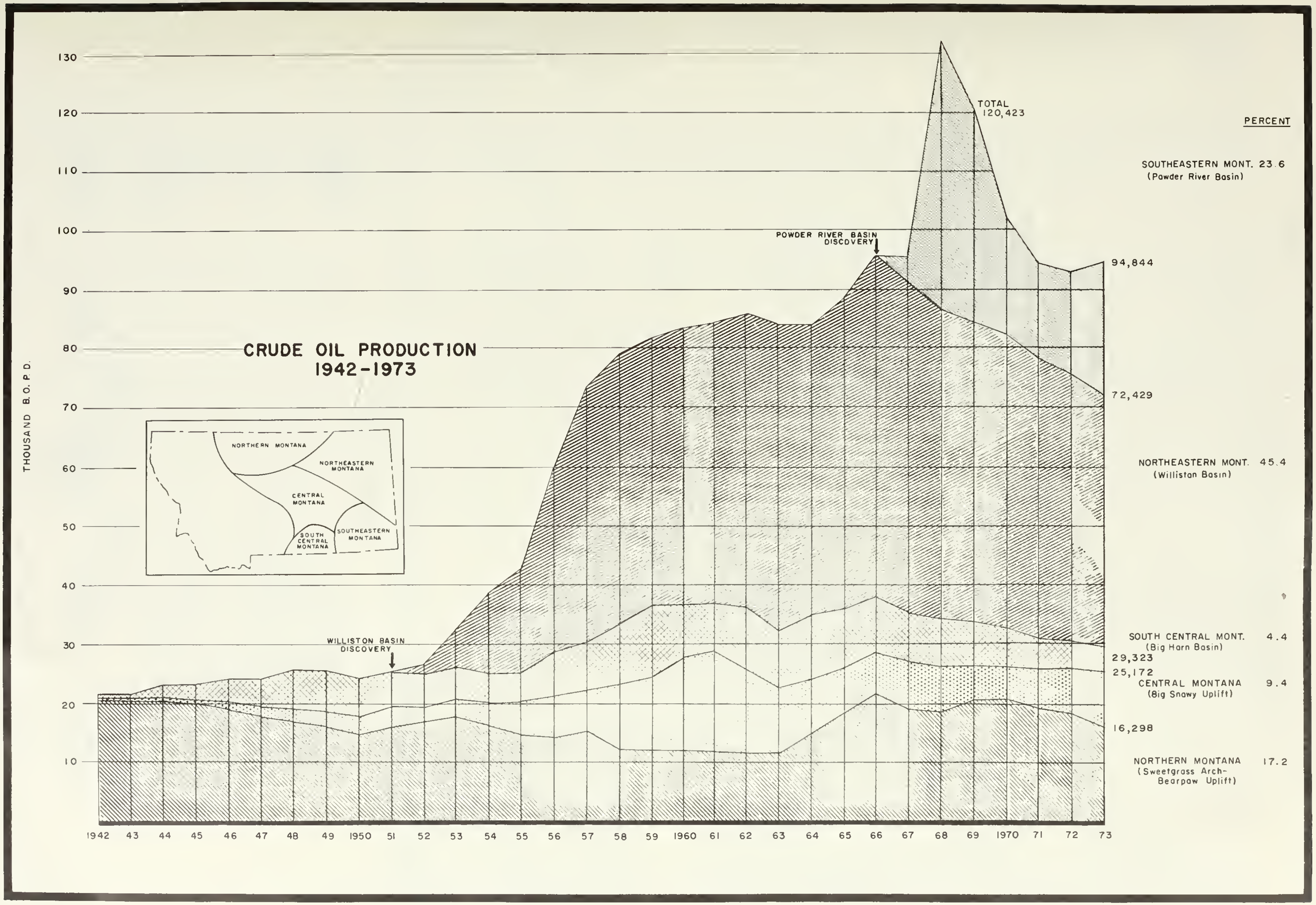
# FIVE YEAR SUMMARY

| | 1969 | 1970 | 1971 | 1972 | 1973 |
|---|---|---|---|---|---|
| Production, Northern Montana—Bbls. | 7,557,966 | 7,680,831 | 7,292,476 | 6,646,908 | 5,948,826 |
| South Central—Bbls. | 2,739,346 | 2,329,187 | 2,028,304 | 1,742,749 | 1,515,088 |
| Central—Bbls. | 2,011,445 | 1,915,273 | 2,274,124 | 2,817,045 | 3,238,967 |
| Williston Basin—Bbls. | 18,396,618 | 18,110,147 | 17,042,703 | 16,361,771 | 15,735,703 |
| Powder River Basin—Bbls. | 13,248,737 | 7,843,259 | 5,961,116 | 6,335,666 | 8,181,598 |
| TOTAL | 43,954,112 | 37,878,697 | 34,598,723 | 33,904,139 | 34,620,182 |
| No. of Producing Wells, Northern Montana | 1,827 | 1,806 | 1,768 | 1,856 | 1,708 |
| South Central | 108 | 92 | 96 | 83 | 83 |
| Central | 244 | 200 | 212 | 224 | 245 |
| Williston Basin | 759 | 743 | 748 | 706 | 709 |
| Powder River Basin | 397 | 371 | 321 | 265 | 248 |
| TOTAL | 3,335 | 3,212 | 3,145 | 3,134 | 2,993 |
| Average Daily Production/Well—BOPD, | | | | | |
| Northern Montana | 11.3 | 11.6 | 11.3 | 9.8 | 9.5 |
| South Central | 69.5 | 69.3 | 57.9 | 57.4 | 50.0 |
| Central | 22.6 | 26.2 | 29.4 | 34.4 | 36.2 |
| Williston Basin | 66.4 | 66.8 | 62.4 | 63.3 | 60.8 |
| Powder River Basin | 91.4 | 57.9 | 50.9 | 65.3 | 90.4 |
| STATE AVERAGE | 36.1 | 32.3 | 30.1 | 29.6 | 31.7 |
| Development Wells Drilled, Oil Wells | 171 | 60 | 49 | 79 | 46 |
| Gas Wells | 44 | 30 | 36 | 97 | 165 |
| Dry Holes | 105 | 63 | 34 | 87 | 100 |
| TOTAL | 320 | 153 | 119 | 263 | 311 |
| Exploratory Wells Drilled, Oil Wells | 15 | 12 | 3 | 7 | 6 |
| Gas Wells | 5 | 11 | 22 | 19 | 36 |
| Dry Holes | 466 | 272 | 323 | 435 | 366 |
| TOTAL | 486 | 295 | 348 | 461 | 408 |
| TOTAL WELLS DRILLED | 806 | 488 | 467 | 724 | 719 |
| TOTAL FOOTAGE DRILLED | 3,682,758 | 1,969,583 | 1,735,222 | 2,300,075 | 1,834,288 |
| AVERAGE DEPTH OF ALL WELLS | 4,569 | 4,396 | 3,716 | 3,177 | 2,551 |

## SUMMARY OF DRILLING BY COUNTIES — 1973
## STATE OF MONTANA

| County | Wildcats Dry | Wildcats Oil | Wildcats Gas | Development Dry | Development Oil | Development Gas | Total Wells | Footage Drilled | Average Depth |
|---|---|---|---|---|---|---|---|---|---|
| Big Horn | 7 | 0 | 0 | 0 | 1 | 0 | 8 | 30,060 | 3,758 |
| Blaine | 58 | 0 | 8 | 3 | 2 | 8 | 79 | 148,656 | 1,882 |
| Carbon | 4 | 0 | 0 | 1 | 0 | 0 | 5 | 21,802 | 4,360 |
| Carter | 2 | 0 | 0 | 0 | 0 | 0 | 2 | 7,330 | 3,665 |
| Cascade | 2 | 0 | 0 | 0 | 0 | 0 | 2 | 2,720 | 1,360 |
| Chouteau | 84 | 0 | 11 | 15 | 0 | 28 | 138 | 271,936 | 1,971 |
| Custer | 12 | 0 | 0 | 1 | 0 | 1 | 14 | 36,062 | 2,576 |
| Daniels | 3 | 0 | 0 | 0 | 0 | 0 | 3 | 22,380 | 7,460 |
| Dawson | 0 | 0 | 0 | 0 | 2 | 0 | 2 | 12,610 | 6,305 |
| Fallon | 0 | 0 | 0 | 1 | 1 | 0 | 2 | 18,910 | 9,455 |
| Fergus | 28 | 0 | 0 | 0 | 0 | 1 | 29 | 66,654 | 2,298 |
| Garfield | 6 | 0 | 0 | 0 | 0 | 0 | 6 | 42,205 | 7,034 |
| Glacier | 2 | 1 | 0 | 2 | 13 | 1 | 19 | 52,978 | 2,788 |
| Golden Valley | 1 | 0 | 1 | 0 | 0 | 0 | 2 | 5,483 | 2,742 |
| Hill | 38 | 0 | 10 | 35 | 0 | 36 | 119 | 190,664 | 1,602 |
| Judith Basin | 10 | 0 | 0 | 0 | 0 | 0 | 10 | 25,241 | 2,524 |
| Liberty | 9 | 0 | 0 | 10 | 2 | 7 | 28 | 71,550 | 2,555 |
| Madison | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 500 | 500 |
| McCone | 4 | 0 | 0 | 2 | 0 | 0 | 6 | 44,008 | 7,335 |
| Musselshell | 10 | 2 | 0 | 11 | 7 | 0 | 30 | 114,232 | 3,808 |
| Petroleum | 3 | 0 | 0 | 0 | 2 | 0 | 5 | 20,462 | 4,092 |
| Phillips | 14 | 0 | 3 | 0 | 0 | 54 | 71 | 120,987 | 1,704 |
| Pondera | 2 | 0 | 0 | 1 | 0 | 0 | 3 | 5,552 | 1,851 |
| Powder River | 12 | 0 | 0 | 0 | 1 | 0 | 13 | 62,072 | 4,775 |
| Prairie | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 9,180 | 9,180 |
| Richland | 0 | 2 | 0 | 1 | 2 | 0 | 5 | 63,368 | 12,674 |
| Roosevelt | 1 | 1 | 0 | 1 | 0 | 0 | 3 | 26,560 | 8,853 |
| Rosebud | 15 | 0 | 0 | 3 | 7 | 0 | 25 | 107,921 | 4,317 |
| Sheridan | 1 | 0 | 0 | 0 | 1 | 0 | 2 | 19,610 | 9,805 |
| Stillwater | 8 | 0 | 3 | 2 | 0 | 15 | 28 | 57,367 | 2,049 |
| Teton | 4 | 0 | 0 | 1 | 2 | 0 | 7 | 14,176 | 2,025 |
| Toole | 13 | 0 | 0 | 10 | 1 | 7 | 31 | 72,989 | 2,354 |
| Valley | 4 | 0 | 0 | 0 | 0 | 5 | 9 | 26,551 | 2,950 |
| Wheatland | 2 | 0 | 0 | 0 | 0 | 2 | 4 | 11,333 | 2,833 |
| Wibaux | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 9,199 | 9,199 |
| Yellowstone | 6 | 0 | 0 | 0 | 0 | 0 | 6 | 25,056 | 4,176 |
| TOTALS | 366 | 6 | 36 | 100 | 46 | 165 | 719 | 1,834,288 | 2,551 |



CRUDE OIL PRODUCTION
1942-1973

## GAS PRODUCTION DATA — 1973

| Field | County | Producing Formation | 1973 Production M.C.F. |
|---|---|---|---|
| Bear's Den | Liberty | Sunburst & Sawtooth | 8,481 |
| Bell Creek* | Powder River | Muddy | 846,426 |
| Big Coulee | Golden Valley & Stillwater | Lakota & Morrison | 1,126,326 |
| Black Coulee | Blaine | Eagle | 23,950 |
| Blackjack | Liberty | Sunburst & Swift | 370,889 |
| Bowdoin | Phillips & Valley | Bowdoin & Phillips | 5,300,849 |
| Bowes | Blaine | Eagle | 472,642 |
| Cabin Creek* | Fallon | Interlake & Red River | 885,744 |
| Cedar Creek | Fallon | Judith River & Eagle | 7,471,946 |
| Cut Bank & Reagan | Glacier & Toole | Cut Bank & Madison | 3,274,900 |
| Dry Creek | Carbon | Eagle & Frontier | 461,849 |
| Elk Basin* | Carbon | Tensleep | 463,018 |
| Ethridge | Toole | Bow Island & Swift | 157,504 |
| Flat Coulee | Liberty | Blackleaf & Swift | 127,218 |
| Gold Butte | Toole | Bow Island | 2,814 |
| Grandview | Liberty | Bow Island & Madison | 177,031 |
| Hardin | Big Horn | Frontier | 26,686 |
| Keith Block | Liberty | Bow Island, Sawtooth | 803,203 |
| Kevin-Sunburst | Toole | Sunburst & Sun River | 367,404 |
| Lake Basin | Stillwater | Frontier & Eagle | 119,933 |
| Liscom Creek | Custer | Shannon | 451,360 |
| Middle Butte | Toole | Blackleaf | 11,596 |
| Mt. Lilly | Liberty | Madison | 186,782 |
| Pine* | Dawson, Prairie, Fallon & Wibaux | Interlake & Red River | 620,182 |
| Plevna | Fallon | Judith River | 90,360 |
| South Devon | Toole | Bow Island | 277,831 |
| Tiger Ridge | Blaine & Hill | Judith River & Eagle | 29,130,011 |
| Trail Creek | Liberty & Toole | Sunburst | 103,865 |
| Utopia | Liberty | Ellis, Sawtooth, Madison | 449,389 |
| West Butte | Toole | Sawtooth, Madison | 592,153 |
| Whitlash | Liberty | Bow Island, Kootenai & Swift | 524,885 |
| Miscellaneous** | Various | Various | 2,812,288 |
| | | TOTAL ALL FIELDS | 57,739,515 |

*Associated Gas.

**Brorson, Tule Creek & Fairview Produced Associated Gas; Devon and Fred & George Creek Produced Non-associated Gas.

## REFINING — 1973

| | Year 1973 Total Bbls. |
|---|---|
| Big West Oil Company | 1,469,405 |
| Continental Oil Company | 16,488,321 |
| Diamond Asphalt Company | 3,069 |
| Farmers Union Central Exchange, Inc. | 11,921,953 |
| Exxon Company | 16,668,281 |
| Jet Fuel Refinery | 6,982 |
| Phillips Petroleum Company | 2,219,519 |
| Spruce Oil Company | 668,318 |
| Westco Refining Company | 1,521,358 |
| | 50,967,206 |

### Refining Five Year Comparison

| 1969 | 1970 | 1971 | 1972 | 1973 |
|---|---|---|---|---|
| 40,437,537 | 42,330,220 | 44,996,860 | 48,464,721 | 50,067,206 |

# SUMMARY OF SECONDARY RECOVERY PROJECTS — JANUARY 1, 1974

| Field, Formation | Operator | Type of Project | Injection Pattern | Date Injections Commenced | Cumulative Injections 1000's Bbls. or MCF | Dec. 1973 Avg. Daily Inj. Rate Bbls. or MCF | No. of Injection Wells | Source of Injection Media and Remarks |
|---|---|---|---|---|---|---|---|---|
| Ash Creek, Shannon | McDermott | Waterflood | Peripheral | 10-15-64 | 890 | 1,500 | 2 | Parkman |
| Bell Creek, Unit "A", Muddy | Gary | Waterflood | Peripheral | 7- 1-70 | 37,852 | 26,667 | 26 | Madison |
| Bell Creek, Unit "B", Muddy | Gary | Waterflood | Peripheral | 11- 1-70 | 10,610 | 10,250 | 11 | Madison |
| Bell Creek, Ranch Creek, Muddy | Gary | Waterflood | Peripheral | 7- 1-71 | 13,368 | 13,354 | 13 | Madison |
| Bell Creek, Unit "C", Muddy | Gary | Waterflood | Peripheral | 12- 1-71 | 4,007 | 5,429 | 6 | Madison |
| Bell Creek, Unit "D", Muddy | Gary | Waterflood | Peripheral | 8-72 | 5,767 | 9,438 | 16 | Madison |
| Bell Creek, Unit "E", Muddy | Gary | Waterflood | Peripheral | 8-72 | 3,600 | 5,855 | 14 | Madison |
| Big Wall, Tyler B | Texaco, Inc. | Waterflood | Peripheral | 8-20-66 | 13,137 | 3,615 | 2 | Produced, Amsden & Tyler |
| Border, New, Cut Bank | BG&O Co. | Waterflood | Random | 6- 1-73 | 24 | 83 | 1 | Madison |
| Border, Old, Cut Bank | BG&O Co. | Waterflood | Random | 6- 1-73 | 76 | 354 | 4 | Madison |
| Bowes, Sawtooth | Texaco, Inc. | Waterflood | Random | 5-23-61 | 3,156 | 848 | 3 | Madison |
| Cabin Creek, Siluro-Ord. | Shell | Waterflood | Semi-Peripheral | 6-12-59 | 115,092 | 44,872 | 31 | Produced & Fox Hills |
| Cat Creek, East Dome, Swift | Moss | Waterflood | Semi-Peripheral | 7-30-70 | 114 | 98 | 2 | Third Cat Creek |
| Cat Creek, 1st & 2nd CC (Unit 1) | Farmers Union | Waterflood | Semi-Peripheral | 10-10-62 | 8,826 | 2,245 | 7 | Third Cat Creek |
| Cat Creek, 1st & 2nd CC (Unit 2) | Farmers Union | Waterflood | Semi-Peripheral | 12- 1-59 | 16,821 | 787 | 5 | Third Cat Creek |
| Cat Creek, Mosby, Swift | Farmers Union | Waterflood | Random | 7-67 | 2,500 | 1,340 | 5 | Third Cat Creek |
| Cat Creek, Mosby, Amsden | Farmers Union | Waterflood | Random | 6- 1-71 | 31 | 19 | 1 | Third Cat Creek |
| Cut Bank, Marina, Cut Bank | BG&O Co. | Waterflood | 5-Spot | 6-72 | 493 | 1,059 | 9 | Madison |
| Cut Bank, Tweedy, Cut Bank | BG&O Co. | Waterflood | 5-Spot | 6-72 | 397 | 566 | 4 | Madison |
| Cut Bank NE, Cut Bank | Texaco, Inc. | Waterflood | 5-Spot | 6- 2-63 | 12,126 | 1,257 | 20 | Madison |
| Cut Bank NW, Cut Bank | Phillips | Waterflood | 5-Spot | 1-30-62 | 13,119 | 1,738 | 15 | Madison |
| Cut Bank SC, Cut Bank | Union | Waterflood | 5-Spot | 5-63 | 24,972 | 7,793 | 48 | Madison |
| Cut Bank SE, Cut Bank | Texaco, Inc. | Waterflood | 5-Spot | 4-62 | 42,985 | 9,717 | 51 | Madison |
| Cut Bank SW, Cut Bank | Phillips | Waterflood | 5-Spot | 9-62 | 55,798 | 20,787 | 111 | Madison |
| Cut Bank, Lander A | Phillips | Waterflood | Random | 4-65 | 1,270 | 144 | 2 | Madison |
| Cut Bank, Lander | Texaco, Inc. | Waterflood | Random | 7-64 | 5,700 | 1,502 | 7 | Eagle |
| Cut Bank, McGuiness, Moulton | Union | Waterflood | Random | 12-62 | 2,960 | 961 | 1 | Madison |
| Cut Bank, Cut Bank | Tesoro | Waterflood | 5-Spot | 9- 1-71 | 977 | 2,569 | 18 | Madison |
| Cut Bank, Two Medicine, Cut Bank | Miami | Waterflood | Random | 12-67 | 31,502 | 14,174 | 99 | Madison |
| Cut Bank, West Wilcox, Moulton | Decalta | Waterflood | Random | 2-71 | 598 | 433 | 1 | Madison |
| Cut Bank, Moulton, Moulton | Union | Waterflood<br>Gas Injection | Random<br>Random | 11-69<br>5-15-71 | 11,164<br>Shut-In | 7,611<br>-- | 11<br>-- | Water Inj. into Madison<br>Gas Inj. into Moulton |
| Darling, State, Moulton | BG&O Co. | Waterflood | Random | 2-67 | 1,859 | 900 | 1 | Madison |
| Darling, NE Unit, Moulton | Ralph Fair | Waterflood | Random | 2-68 | 3.435 | 1,425 | 4 | Produced Water |
| Darling, South Swenson, Moulton | BG&O Co. | Waterflood | Random | 2-67 | 6,085 | 2,202 | 5 | Madison |
| Dwyer, Ratcliffe | Phillips | Waterflood | Peripheral | 10-68 | 996 | 930 | 5 | Madison |
| Elk Basin, Embar-Tensleep | Amoco | Gas Injection | Random | 12-72 | 2,020 M | 1,300 | 1 | Purchased Gas |
| Elk Basin, Frontier | Amoco | Waterflood | Random | 1926 | 1,228 | 1,200 | 2 | Madison |
| Elk Basin, Unit 2, Tensleep | Amoco | Waterflood | Random | 1949 | 1,646 | 719 | 1 | Produced Water |
| Elk Basin, Madison | Amoco | Waterflood | Peripheral | 1962 | 43,374 | 1,500 | 8 | Produced Water |
| Elk Basin NW, Tensleep | Atlantic-Richfield | Waterflood | Semi-Peripheral | 5-67 | 2,304 | 711 | 1 | Madison |
| Fairview, NW Unit, Red River | Superior | Gas Injection | Crestal | 10-25-67 | 1,519 M | 1,896 | 1 | Purchased Gas |
| Flat Coulee, Swift | Cardinal | Waterflood | Peripheral | 2- 1-72 | 1,389 | 2,311 | 15 | Eagle |
| Flat Lake, Ratcliffe | Chevron | Waterflood | Random | 6- 1-71 | 5,887 | 7,326 | 11 | Produced Water |
| Frannie, Tensleep | Continental | Waterflood | Random | 9-70 | 1,075 | 818 | 1 | Produced Water |
| Fred & George, Sunburst | Fulton | Waterflood | Random | 7-70 | 6,740 | 9,203 | 3 | Madison & Eagle |
| Gas City, Red River | Shell | Waterflood | Semi-Peripheral | 10-31-69 | 4,935 | 3,622 | 7 | Mission Canyon |
| Goose Lake, Ratcliffe | Cotton Petroleum | Waterflood | Semi-Peripheral | 1-73 | 330 | 2,912 | 4 | Produced Water |
| Jim Coulee, Tyler B | McAlester Fuel | Waterflood | Semi-Peripheral | 6- 1-72 | 1,287 | 3,150 | 5 | Third Cat Creek |
| Keg Coulee, NW Unit, Tyler B | Ada Oil | Waterflood | Semi-Peripheral | 8-31-66 | 4,255 | 503 | 2 | Madison |
| Keg Coulee, East, Tyler | Continental | Waterflood | Semi-Peripheral | 12-24-69 | 2,879 | 2,162 | 4 | Third Cat Creek |
| Keg Coulee, South, Tyler | BG&O Co. | Waterflood | Semi-Peripheral | 1- 1-70 | 969 | 709 | 1 | Madison |
| Kelley, Tyler | McAlester Fuel | Waterflood | Random | 7-69 | 968 | 789 | 3 | Third Cat Creek |
| Kevin-Sunburst, Madison | Lon Crumley | Waterflood | Random | 9-63 | 859 | 252 | 2 | Madison |
| Kevin-Sunburst, Madison | BG&O Co. | Waterflood | Random | 8-64 | 4,187 | 2,659 | 4 | Madison |
| Kevin-Sunburst, Madison | Texaco, Inc. | Waterflood | Semi-Peripheral | 8-64 | 7,376 | 1,554 | 9 | Madison |
| Little Beaver, Red River | Shell | Waterflood | Semi-Peripheral | 8- 7-66 | 17,936 | 6,656 | 13 | Madison |
| Little Beaver East, Red River | Shell | Waterflood | Semi-Peripheral | 4-65 | 6,959 | 3,723 | 6 | Madison |
| Lookout Butte, Red River | Shell | Waterflood | Semi-Peripheral | 4-67 | 14,347 | 6,112 | 12 | Minnelusa |
| Lookout Butte, Madison | Shell | Waterflood | Semi-Peripheral | 2-69 | 1,148 | 893 | 1 | Minnelusa |
| Monarch, Silurian | Shell | Waterflood | Random | 12- 1-73 | 30 | 967 | 3 | Siluro-Ord. |
| Pennel, Red River | Shell | Waterflood | Random | 6-28-69 | 25,013 | 26,617 | 47 | Dakota and Produced |
| Pine, South, Red River | Shell | Waterflood | Semi-Peripheral | 3-59 | 94,606 | 42,994 | 37 | Fox Hills and Produced |
| Pine, North, Red River | Shell | Waterflood | Semi-Peripheral | 3-68 | 9,816 | 4,846 | 11 | Lodgepole |
| Prichard Creek, Sunburst | Fulton Producing | Waterflood | Random | 4-73 | 146 | 493 | 1 | Eagle |
| Ragged Point, Tyler | BG&O Co. | Waterflood | Semi-Peripheral | 12- 3-66 | 4,942 | 1,561 | 4 | Third Cat Creek |
| Reagan, Madison | Union | Gas Injection | Random | 8-61 | 4,107 M | 728 | 2 | Gas Injection |
| Red Creek, Cut Bank | Exxon | Waterflood | 5-Spot | 6-65 | 7,671 | 3,014 | 6 | Madison |
| Richey SW, Interlake | Atlantic-Richfield | Waterflood | Random | 12-65 | 2,044 | 138 | 1 | Fox Hills |
| Stensvad, Tyler | Ada Oil | Waterflood | Semi-Peripheral | 2-63 | 23,271 | 5,675 | 7 | Madison |
| Sumatra West, Tyler | Continental | Waterflood | Semi-Peripheral | 10-68 | 8,821 | 5,293 | 11 | Madison |
| Sumatra Central, Tyler | Texaco, Inc. | Waterflood | Semi-Peripheral | 9-16-69 | 28,176 | 20,510 | 15 | Madison |
| Sumatra NE, Tyler | Texaco, Inc. | Waterflood | Semi-Peripheral | 9-16-69 | 2,259 | 1,588 | 7 | Madison |
| Sumatra SE, Tyler | BG&O Co. | Waterflood | Semi-Peripheral | 12- 1-69 | 4,225 | 3,693 | 5 | Madison |
| Willow Creek, North, Tyler B | Resources Investment | Waterflood | Random | 6- 1-72 | 25 | 101 | 1 | Produced |

## OIL AND GAS DISCOVERIES IN 1973

| County | Operator-Well Name and Location | Field | Total Depth | Initial Potential Oil B/O | Initial Potential Gas MCF | Producing Formation | Date Completed |
|---|---|---|---|---|---|---|---|
| Blaine | Gas Producing Enterprises, State 16-1, NE SW SE 16-30N-21E | Unnamed | 1,500 | | Shut-in | Eagle | 7-14-73 |
| | Texas Gas Exploration, Federal 1, NE SW 18-24N-20E | Unnamed | 1,650 | | Shut-in | Eagle | 6- 8-73 |
| | Texas Gas Exploration, Federal 1, NE SW 12-24N-20E | Unnamed | 1,847 | | Shut-in | Eagle | 6- 8-73 |
| | Gas Producing Enterprises, State 12-30-20, NE SW SW 12-30N-20E | Unnamed | 1,275 | | Shut-in | Eagle | 6-30-73 |
| | Colorado Oil & Gas, USA 14-23-17, SW NE SE 14-23N-17E | Unnamed | 1,700 | | Shut-in | Eagle | 7-29-73 |
| | Probe Oil & Gas, Williams 1, NE SE 18-34N-18E | Unnamed | 1,555 | | 21 MCF/O | Judith River | 8-27-73 |
| | Colorado Oil & Gas, USA 1, SE NW NW 22-24N-17E | Unnamed | 1,850 | | Shut-in | Eagle | 8- 4-73 |
| | Colorado Oil & Gas, USA 1, SW SW 10-26N-21E | Unnamed | 1,900 | | Shut-in | Eagle | 8-11-73 |
| Chouteau | Roland S. Bond, Boyce 2-24, SE NW SE 24-27N-16E | Unnamed | 2,164 | | 600 MCF/O | Eagle | 6-14-73 |
| | Gas Producing Enterprises, State 16-23-17, C NW¼ 16-23N-17E | Unnamed | 1,500 | | Shut-in | Eagle | 7-24-73 |
| | Gas Producing Enterprises, Rutledge 14-34, C SW¼ 34-25N-14E | Unnamed | 1,490 | | Shut-in | Eagle | 7-13-73 |
| | Gas Producing Enterprises, Orga 23-22, NE NE SW 22-24N-15E | Unnamed | 1,480 | | Shut-in | Eagle | 7- 6-73 |
| | Roland S. Bond-Lone Star, IX Ranch C1-11, NE SW SE 11-27N-15E | Unnamed | 1,725 | | Shut-in | Eagle | 9-15-73 |
| | Colorado Oil & Gas, Tordlk 41-3, NW SE NE 3-23N-16E | Unnamed | 1,500 | | Shut-in | Eagle | 8-18-73 |
| | Gas Producing Enterprises, Adamic 13-34, SW¼ 34-24N-15E | Unnamed | 1,809 | | Shut-in | Eagle | 9- 1-73 |
| | Gas Producing Enterprises, State 16-28, C NE¼ 16-28N-12E | Unnamed | 1,462 | | Shut-in | Eagle | 9-13-73 |
| | Probe Oil Company, Anderson 1, SW NE NE 6-25N-16E | Unnamed | 1,630 | | Shut-in | Eagle | 3-23-73 |
| | High Crest, Cowan 21X2, SE NW NE 21-29N-14E | Unnamed | 1,400 | | Shut-in | Eagle | 8-28-73 |
| | Roland S. Bond-Lone Star, IX Ranch F1-33, SW NE 33-28N-14E | Unnamed | 1,535 | | Shut-in | Eagle | 7-30-73 |
| Glacier | Mountain States Resources, Tuma 4-1, NE SE 4-37N-5W | Graben Coulee | 2,930 | IPP 120 BOPO | | Cut Bank | 3- 5-73 |
| Golden Valley | Cardinal Petroleum Co., Conover 9-35, NE SE 35-5N-22E | Unnamed | 3,675 | | 750 MCF/O | Mowry | 12-15-73 |
| Hill | Gas Producing Enterprises, State 16-30-11, NE¼ 16-30N-11E | Unnamed | 1,092 | | Shut-in | Eagle | 6-16-73 |
| | Gas Producing Enterprises, State 35-33-12, SW¼ 35-33N-12E | Unnamed | 1,494 | | Shut-in | Eagle | 6-26-73 |
| | Gas Producing Enterprises, State 16-30-13, SE¼ 16-30N-13E | Unnamed | 1,196 | | Shut-in | Eagle | 8- 9-73 |
| | Gas Producing Enterprises, State 36-31-11, SE¼ 36-31N-11E | Unnamed | 1,092 | | Shut-in | Eagle | 6-15-73 |
| | Probe Oil Company, Paulsen 1, SE NW 6-33N-17E | Unnamed | 1,370 | | Shut-in | Eagle | 8-21-73 |
| | Probe Oil Company, Romalne 1, SW NW 10-34N-16E | Unnamed | 1,393 | | 16 MCF/O | Eagle | 8-21-73 |
| | Fulton Producing, Federal 3-1, SW NE NE 3-35N-12E | Unnamed | 2,300 | | Shut-in | Eagle | 8-14-73 |
| | Oil Resources, Inc., E. Hueller 18-13, SW SW 18-37N-8E | Unnamed | 3,700 | | 15.5 MCF/O | Sawtooth | 12-21-73 |
| | Montana Power Co., State 16-11, NW SE SE 11-35N-9E | Unnamed | 3,570 | | Shut-in | Sawtooth | 12- 8-73 |
| | Gas Producing Enterprises, Effinger 34-32-11, SE¼ 34-32N-11E | Unnamed | 1,139 | | Shut-in | Eagle | 12-21-73 |
| Musselshell | True Oil Company, Beckman 11-24, NW NW 24-10N-25E | Unnamed | 2,965 | Swab 3 BOPH | | Tyler "B" | - - |
| | Soape-Petro-Lewis-Hancock, Mang 15-5, SW SE 5-11N-25E | Winnett Junction | 2,735 | IPP 103 BOPO | | Tyler "A" | 7-31-73 |
| Phillips | Miami Oil Producers, Kovach 1, NW¼ 27-35N-29E | Unnamed | 2,357 ? | | Shut-in | Bowdoin | 2- 7-73 |
| | Miami Oil Producers, Doucette 1, NW¼ 35-31N-28E | Unnamed | 2,631 | | Shut-in | Phillips | 1-28-73 |
| | Jack Grynberg & Assoc., Federal 1, W½ NE SE 21-31N-33E | Unnamed | 1,500 | | Shut-in | Bowdoin | 2- 3-73 |
| Richland | Pennzoil, Inc., Tveit 2, N½ SE¼ 19-25N-58E | Sioux Pass | 12,795 | IPF 563 BOPO<br>IPF 397 BOPO | | Interlake<br>Red River | 9-28-73 |
| | Kenneth Luff, Federal 1-20, NW NW 20-26N-58E | North Sioux Pass | 12,475 | IPF 506 BOPO | | Red River | 10-24-73 |
| Roosevelt | Helmerich & Payne, Inc., Wilson 1, SW NW 33-27N-59E | Riprap Coulee | 12,966 | IPP 165 BOPO | | Ratcliffe | 8-30-73 |
| Stillwater | West Gas, Inc., Keating 1-26, C NE¼ 26-1N-21E | Lake Basin | 4,140 | | Shut-in | Eagle | 12- 3-73 |
| | Concept Resources, Inc., State 4-16, SE NW NW 16-2N-20E | Rapelje | 1,362 | | 2,600 MCF/O | Eagle | 7- 2-73 |
| | Concept Resources, Inc., State 4-16A, SE NW NW 16-2N-20E | Rapelje | 762 | | 220 MCF/O | Claggett | 7- 2-73 |

## SIGNIFICANT EXTENSIONS AND NEW PAY ZONES IN 1973

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| Musselshell | Petro-Lewis, Ward Estate 13-17, C SW SW 17-11N-30E | Ragged Point | 4,119 | IPP 160 BOPO | | Tyler "A" | 2-15-73 |

# OIL AND GAS FIELDS

| Field, Formation, Age | No. Prod. Wells | Type of Trap | Probable Drive Mechanism | Spacing Regulations, Field Rules, and Remarks | Secondary Recovery or Water Disposal |
|---|---|---|---|---|---|
| **ANTELOPE** | | | | | |
| Swift (U. Jur.) | 3 | Structural | Water Drive | (Listed as part of Cat Creek Field.) | None |
| **ARCH APEX** | | | | | |
| Bow Island (L. Cret.) Gas | 4 | Strat. | Volumetric | 330′ from legal subdivision; 2400′ from any other drilling or producible gas well producing from the same reservoir; 75′ topographic tolerance. (Order 4-60.) (Sometimes called Colorado Blackleaf pool.) (Swift) State-wide. | None |
| Swift (Jurassic) Gas (Shut-in) | 3 | Strat. | Volumetric | | |
| **ASH CREEK** | | | | | |
| Shannon (U. Cret.) | 3 | Structural | Partial Water Drive and Depletion | Spacing waived within unitized portion of field except no well may be drilled closer than 660′ from unit boundary. (Order 4-65.) | Waterflood started October, 1964. (Orders 22-64, 15-66.) |
| **BAINVILLE** | | | | | |
| Red River (Ord.)<br>(Shut-in) | 1<br>1 | Structural-Strat. | Depletion-Water Drive | State-wide. | None |
| **BANNATYNE** | | | | | |
| Swift (U. Jur.) | 1 | Structural | Comb. Water Drive and Volumetric | Center of 10-acre tracts, 50′ topographic tolerance. Commingling permitted. (Order 20-58.) | Pilot waterflood of Swift suspended in 1963. |
| Sun River (U. Miss.) (Shut-in) | 1 | | | | |
| **BEARS DEN** | | | | | |
| Sunburst (L. Cret.) Gas (Shut-in) | 2 | Structural | Depletion and Gas Cap Drive | State-wide. | None |
| Swift (U. Jur.) Oil | 5 | | | | |
| Sawtooth (Jur.) Gas (Shut-in) | 1 | | | | |
| **BELL CREEK** | | | | | |
| Muddy (L. Cret.) Oil & Gas | 240 | Strat. | Depletion | Originally 40-acre spacing units with location 660′ from unit boundary with 150′ tolerance for topographic reasons only. (Orders 37-67, 39-67, 50-67, 1-69, 17-70.) Field now unitized. | Six areas unitized (Unit "A", "B", Ranch Creek, "C", "D", and "E".) Floods use Madison water. (Orders 7-70, 23-70, 8-71, 26-71, 35-71, 36-71.) |
| Gas | 1 | | | | |
| **BELL CREEK, SOUTHEAST** | | | | | |
| Muddy (L. Cret.) Gas | 2 | Strat. | Depletion | 160-acre spacing units, wells 660′ from spacing boundary. (Order 31-72.) | None |
| **BENRUD** | | | | | |
| Nisku (Dev.)<br>(Shut-in) | 1<br>1 | Structural | Water Drive | 160-acre spacing units with permitted location within a 1320′ square in center of quarter section. (Order 6-65.) | Water disposal into Judith River formation. (Order 64-62.) |

| Field, Formation, Age | | No. Prod. Wells | Type of Trap | Probable Drive Mechanism | Spacing Regulations, Field Rules, and Remarks | Secondary Recovery or Water Disposal |
|---|---|---|---|---|---|---|
| **BENRUD, EAST** | | | | | | |
| Nisku (Dev.) | | 3 | Structural | Water Drive | Same as Benrud Field. (Order 6-65.) | Water disposal into Judith River formation. (Order 64-62, 32-66.) |
| **BENRUD, NORTHEAST** | | | | | | |
| Nisku (Dev.) | | 1 | Structural | Water Drive | Same as Benrud Field. (Order 6-65.) | Water disposal into Judith River formation. (Order 32-66.) |
| **BERTHELOTE** | | | | | | |
| Sunburst (L. Cret.) | (Shut-in) | 1 | Strat. | Depletion | 40-acre spacing units with well no closer than 330′ from lease or property line and no closer than 660′ between wells. (Order 18-66.) | None |
| **BIG COULEE** | | | | | | |
| 3rd Cat Creek (L. Cret.) Gas | | 5 | Structural | Water Drive | State-wide. | None |
| Morrison (U. Jur.) Gas | | 1 | Structural | Water Drive | | |
| **BIG WALL** | | | | | | |
| Amsden (Penn.) | | 1 | Structural | Water Drive | Spaced by old state-wide spacing; 330′ from lease or property line, 990′ between wells in same reservoir. (Order 12-54.) | Previous disposal into Tyler "A" stopped in 1961. Waterflood of Tyler "B" sand started August, 1966. (Order 22-66.) |
| | (Shut-in) | 1 | | | | |
| Tyler (Penn.) | | 13 | Struct.-Strat. | Depletion | | |
| | (Shut-in) | 4 | | | | |
| **BLACK COULEE** | | | | | | |
| Eagle (U. Cret.) | | 4 | Structural-Strat. | Water Drive | One well per 320-acre spacing unit, two adjacent quarter sections, direction operator's option. | (Order 6-73.) |
| **BLACKFOOT** | | | | | | |
| Cut Bank (L. Cret.) | | 3 | Strat. | Depletion | One well only per 40-acre spacing unit, 300′ tolerance from center of spacing unit. Dual completion in Cut Bank and Madison with administrative approval. (Order 3-57.) | None |
| | (Shut-in) | 7 | | | | |
| Sun River (Miss.) | | | Structural | Water Drive | | |
| **BLACK JACK** | | | | | | |
| Sunburst (L. Cret.) Gas | | 6 | Strat. | Depletion | One gas well per 160-acres, no closer than 660′ from boundary of each unit. (Order 3-69.) Oil: State-wide spacing. | None |
| Swift (U. Jur.) Gas & Oil | | 1 | | | | |
| **BORDER** | | | | | | |
| Cut Bank (L. Cret.) Oil & Gas | | 7 | Strat. | Depletion | Oil: Unitized into New and Old Border fields. Unitized 6-1-73. (Orders 8-73, 9-73.)<br>Gas: 330′ from boundary of legal subdivision. 2,400′ between wells in same formation on same lease. 75′ topographic tolerance. (Order 7-54.) | Waterflood approved. (Orders 8-73, 9-73.) |

| Field, Formation, Age | No. Prod. Wells | Type of Trap | Probable Drive Mechanism | Spacing Regulations, Field Rules, and Remarks | Secondary Recovery or Water Disposal |
|---|---|---|---|---|---|
| **BOWDOIN** | | | | | |
| Bowdoin & Phillips sands in Colorado Shale (U. Cret.) Gas | 327 | Structural | Volumetric | One well per quarter section not less than 1000′ from lease boundary or less than 2000′ from any gas well in same horizon. (Order 29-55.) Unitized 1958. Delineated: Order 3-72. | None |
| (Shut-in) | 19 | | | | |
| **BOWES** | | | | | |
| Eagle (U. Cret.) Gas | 26 | Structural | Volumetric | 660′ from boundary of legal subdivision, 1320′ from other wells in same formation. 75′ topographic tolerance. (Order 23-54.) | None |
| Sawtooth (M. Jur.) Oil | 41 | Structural | Partial Water Drive | 330′ from lease or property line, 990′ between wells in the same formation. (Order 13-54.) | Pilot waterflood initiated in 1961 and expanded to field-wide waterflood in 1965. (Order 5-61.) Water from Madison. |
| (Shut-in) | 29 | | | | |
| **BRADLEY** | | | | | |
| Sun River (Miss.) | 1 | Structural | Water Drive | State-wide. | None |
| (Shut-in) | 1 | | | | |
| **BRADY** | | | | | |
| Sunburst (L. Cret.) (Shut-in) | 1 | Strat. | Depletion, Partial Water Drive | 10-acre spacing units with 75′ topographic tolerance from center of spacing unit. (Order 34-62, 55-62.) | None |
| **BRORSON** | | | | | |
| Mission Canyon (Miss.) Oil & Gas | 4 | Structural | Volumetric, Water Drive | One well per 160-acre unit, no closer than 660′ from unit boundary (Mission Canyon and Red River). (Order 5-69.) Gas to Brorson Field plant. | None |
| Red River (Ord.) Oil & Gas | 5 | | | | |
| **BRORSON, SOUTH** | | | | | |
| Red River (Ord.) Oil & Gas | 3 | Structural | Volumetric, Water Drive | One well per 160-acre unit, no closer than 660′ from unit boundary. (Order 26-68.) Gas to Brorson Field plant. | None |
| **BRUSH LAKE** | | | | | |
| Red River (Ord.) Oil & Gas | 6 | Structural-Strat. | Depletion Water Drive | 320-acre spacing with initial nine spacing units described in (Order 15-71 corrected). | None |
| **BURNS CREEK** | | | | | |
| Red River (Ord.) | 1 | Structural | Depletion Water Drive | State-wide. | None |
| **CABIN CREEK** | | | | | |
| Mission Canyon (Miss.) Oil & Gas | 18 | Structural | Water Drive, Depletion | Spacing waived and General Rules No. 213 (Deviation), 218 (Commingling) and 219 (Dual Completion) are suspended until present Unit Agreement becomes inoperative. (Order 36-62.) Many wells produce from both Interlake and Red River by dual completions. Gas through extraction plant. | Waterflood of Siluro-Crdovician reservoir has been expanded to a full scale peripheral flood. (Orders 60-62, 30-63.) |
| Interlake-Red River Oil & Gas | 67 | Structural | Water Drive, Depletion | | |

| Field, Formation, Age | No. Prod. Wells | Type of Trap | Probable Drive Mechanism | Spacing Regulations, Field Rules, and Remarks | Secondary Recovery or Water Disposal |
|---|---|---|---|---|---|
| **CANAL** | | | | | |
| Red River (Ord.) | 1 | Structural | Water Drive<br>Depletion | 320-acre spacing units consisting of East half and West half of governmental section. (Order 34-70.) | None |
| **CAT CREEK** | | | | | |
| Kootenai (L. Cret.) | 32 | Structural-Strat. | Water Drive | 220′ from lease or property line, 440′ from every other well in same formation. (Order 17-55.) Five separate producing areas, East, Antelope, Mosby, West and Landheim Domes. | Three Kootenai, two Ellis, and one Amsden waterfloods in progress. (Orders 17-56, 18-59, 13-62, 8-68, 38-70, 11-71.) Water from Third Cat Creek sand. |
| (3 sands) (Shut-in) | 4 | | | | |
| Morrison (U. Jur.) | 2 | Structural-Strat. | Water Drive | | |
| Ellis (U. Jur.) | 11 | Structural | Depletion-Water Drive | | |
| (Shut-in) | 5 | | | | |
| Amsden (Penn.) | 1 | Structural-Strat. | Water Drive | State-wide. | |
| **CEDAR CREEK** | | | | | |
| Judith River (U. Cret.) Gas | 188 | Structural | Volumetric | 1200′ from legal subdivision line, 2400′ from every other well in same formation. (Order 33-54.) | None |
| Eagle (U. Cret.) Gas | 50 | Structural | Volumetric | 320-acre spacing units. Wells in center of NW¼ and SE¼ of each section with 200′ topographic tolerance. (Order 1-61.) | None |
| **CHELSEA CREEK** | | | | | |
| Nisku (Dev.) | 1 | Structural | Water Drive | State-wide. | None |
| **CLARK'S FORK** | | | | | |
| Frontier (U. Cret.) | 1 | Structural-Strat. | Depletion | 330′ from quarter-quarter section line, 1320′ between wells with 75′ topographic tolerance. (Order 17-54.) | None |
| **CLARK'S FORK, SOUTH** | | | | | |
| Greybull (L. Cret.) Oil & Gas (Shut-in) | 1 | Structural-Strat. | Depletion-Water Drive | 160-acre spacing, location no closer than 330′ from quarter section line or 1320′ from any other well. | None |
| **CONRAD, SOUTH** | | | | | |
| Dakota (L. Cret.) (Shut-in) | 1 | Strat. | Depletion | 10-acre spacing units. Wells in center of each unit with 75′ topographic tolerance. (Orders 34-62, 31-63.) | None |
| **COW CREEK** | | | | | |
| Charles (Miss.) | 2 | Structural | Water Drive | 80-acre spacing units, direction at option of operator but wells to be in SW¼ and NE¼ of each quarter section. (Order 11-69.) | None |
| **COW CREEK, EAST** | | | | | |
| Kibbey (Miss.) | 5 | Structural | Water Drive | 80-acre spacing units east half and west half of quarter section, wells NE¼ and SW¼ of each quarter section with 150′ topographic tolerance. (Order 32-71.) | None |
| (Shut-in) | 1 | | | | |

| Field, Formation, Age | No. Prod. Wells | Type of Trap | Probable Drive Mechanism | Spacing Regulations, Field Rules, and Remarks | Secondary Recovery or Water Disposal |
|---|---|---|---|---|---|
| **CULBERTSON** | | | | | |
| Red River (Ord.) | 1 | Structural-Strat. | Depletion-Water Drive | State-wide in part. Unitized as to SE¼ of Section 32, SW¼ of Section 33, N½NW¼ of Section 4, and N½ NE¼ of Section 5. (Order 29-70.) | None |
| **CUPTON** | | | | | |
| Red River (Ord.) | 6 | Structural-Strat. | Water Drive | 160-acre quarter section spacing units. Location no closer than 660′ from spacing unit boundary. (Order 4-72.) | None |
| **CUT BANK** | | | | | |
| Kootenai (L. Cret.) Oil & Gas<br>(Gas only) | 844<br>129 | Strat. | Depletion | (Kootenai formation includes Moulton, Sunburst, and Cut Bank sands.) Oil: 330′ from legal subdivision line. 650′ between wells in same formation. 5-spot on 40-acre tract permitted. 75′ topographic tolerance. (Order 10-54.) Gas: 330′ from legal subdivision, 2400′ between wells in same formation. 75′ topographic tolerance. (Order 10-54.) Sections 20, 29, and 32 of Township 36 North, Range 4 West spaced 320-acres (N½ & S½.) (Order 26-70.) | There are 19 waterfloods in progress. Water from Eagle and Madison, or produced. |
| Madison (Miss.) Oil & Gas<br>(Gas only) (Shut-in) | 27<br>29 | Strat. | Water Drive | | |
| **DARLING** | | | | | |
| (Included as part of Cut Bank Field) | | | | | |
| **DEAN DOME** | | | | | |
| Greybull (L. Cret.) Gas (Shut-in)<br>Oil (Shut-in) | 1<br>1 | Structural | Water Drive | State-wide. Oil ring below gas cap. | None |
| **DEER CREEK** | | | | | |
| Interlake (Sil.)<br>(Shut-in) | 1<br>4 | Structural | Water Drive | 80-acre spacing units consisting of any two adjacent quarter-quarter sections. Well location in NE¼ and SW¼ of each quarter section with 75′ topographic tolerance. (Orders 23-55 & 14-59.) Commingling of production permitted upon approval of Commission Petroleum Engineer. (Order 18-63.) | Excess produced water is disposed into Dakota and Lakota formations. (Orders 6-56 & 3-58.) Two Silurian wells shut-in. |
| Red River (Ord.) (Shut-in) | 2 | Structural | Water Drive | | |
| **DELPHIA** | | | | | |
| Amsden (Penn.) | 1 | Structural | Water Drive | State-wide. | None |
| **DEVIL'S BASIN** | | | | | |
| Heath (U. Miss.) | 3 | Structural | Depletion | State-wide. | None |
| **DEVON** | | | | | |
| Blackleaf (U. Cret.) Gas (Shut-in) | 23 | Strat. | Volumetric | State-wide. | None |
| Kootenai (L. Cret.) Oil Depleted | | Strat. | Depletion | State-wide. | None |
| **DEVON, SOUTH** | | | | | |
| Bow Island (L. Cret.) Gas<br>(Shut-in) | 1<br>9 | Strat. | Volumetric | Drilled on state-wide spacing. Unitized for primary production. (Order 28-71, corrected). | None |

| Field, Formation, Age | No. Prod. Wells | Type of Trap | Probable Drive Mechanism | Spacing Regulations, Field Rules, and Remarks | Secondary Recovery or Water Disposal |
|---|---|---|---|---|---|
| **DRY CREEK** | | | | | |
| Eagle (U. Cret.) Gas | 1 | Structural-Strat. | Volumetric | State-wide.<br>Field re-delineated. (Order 8-70.)<br>Six additional gas storage wells, west end of structure. | None |
| Frontier (U. Cret.) Gas | 8 | Structural | Volumetric | | |
| Greybull (L. Cret.) Gas, (Shut-in) some oil | 1 | Structural-Strat. | Volumetric-Depletion | | |
| **DWYER** | | | | | |
| Ratcliffe (Miss.) | 10 | Structural-Strat. | Water Drive-Volumetric | 160-acre spacing units; well location in center of SE¼ of spacing unit with 175′ topographic tolerance. (Orders 25-60, 29-61.) | Produced water disposed into Dakota formation. (Order 26-63.) Waterflood. (Order 20-68.) |
| (Shut-in) | 4 | | | | |
| **EAST KEITH & KEITH** | | | | | |
| Bow Island (L. Cret.) Gas | 7 | Structural | Water Drive | State-wide, except unitized portions spaced by (Order 22-62). Pooling (Order 19-66). | None |
| Dakota (L. Cret.) | 1 | | | | |
| Sawtooth-Madison (Jur.-Miss.) Gas | 5 | | | | |
| **ELK BASIN** (Mont. Portion) | | | | | |
| Frontier (U. Cret.) | 11 | Structural | Gravity Drainage | Rule No. 203 (Spacing) is waived within Unit Area. (Order 10-61.) Gas to Elk Basin gasoline plant. | Frontier: Water injection. (Order 1-72.) Embar - Tensleep; pressure maintenance by crestal gas injection. Waterflood approved in 1966. (Order 5-66.) Madison: Water injection (Order 17-61.) |
| (Shut-in) | 14 | | | | |
| Embar-Tensleep (Perm., Penn.) | 17 | Structural | Gravity Drainage | | |
| Oil and Gas (Shut-in) | 13 | | | | |
| Madison (Miss.) | 20 | Structural | Water Drive | | |
| **ELK BASIN, NORTHWEST** | | | | | |
| Frontier (U. Cret.) | 2 | Structural | Depletion | Spacing waived within unitized portion except that bottom of hole be no closer than 330′ from unit boundary and there be at least 1320′ surface distance between wells in same formation; 75′ topographic tolerance. (Orders 43-63, 28-64.) Gas to Elk Basin gasoline plant. | Frontier: Waterflood in progress.<br>Embar - Tensleep: Waterflood. (Order 3-67.) Madison, produced water. |
| (Shut-in) | 5 | | | | |
| Embar-Tensleep (Perm., Penn.) Oil and Gas | 5 | Structural | Gravity Drainage | | |
| Madison (Miss.) | 1 | Structural | Water Drive | | |
| **ETHRIDGE AREA** | | | | | |
| Bow Island (L. Cret.) Gas | 3 | Strat. | Water Drive | State-wide. | None |
| Swift (U. Jur.) Gas | 3 | Strat. | Water Drive | State-wide, except two wells by (Order 28-65). | |
| (Shut-in) | 1 | | | | |
| **FAIRVIEW** | | | | | |
| Winnipegosis (Dev.) Oil & Gas | 1 | Structural | Water Drive | 160-acre spacing unit. Well location anywhere in spacing unit but no closer than 660′ from unit boundary. (Order 48-65, 1-67, 43-67, 44-67.) Gas to Fairview plant. | Northwest part of field unitized for gas injection. Gas from Fairview and Brorson fields. (Order 11-70.) Salt water disposal into Dakota. (Orders 9-A-71, 24-A-71.) |
| Red River (Ord.) Oil & Gas | 9 | Structural | Water Drive | | |

| Field, Formation, Age | No. Prod. Wells | Type of Trap | Probable Drive Mechanism | Spacing Regulations, Field Rules, and Remarks | Secondary Recovery or Water Disposal |
|---|---|---|---|---|---|
| **FERTILE PRAIRIE** | | | | | |
| Red River (Ord.) | 2 | Structural-Strat. | Water Drive | 80-acre spacing units consisting of north-south rectangular units. Well location in NW¼ and SE¼ of quarter section with 75′ topographic tolerance. (Orders 3-56, 7-62.) | None |
| **FLAT COULEE** | | | | | |
| Bow Island (L. Cret.) Gas | 3 | Structural and Strat. | Depletion | 330′ from boundary of legal subdivision and 1320′ from other wells in same reservoir. (Order 16-55.) | Waterflood unit and redelineation approved for Swift sandstone. (Orders 13-71, 17-A-71, 22-71.) |
| (Shut-in) | 1 | | | | |
| Dakota (L. Cret.) Gas | 2 | Strat. | Depletion | State-wide, exception (Order 11-66.) | |
| Swift (Jur.) Gas | 1 | Strat. | Depletion | State-wide gas spacing. | |
| Swift (Jur.) Oil | 20 | Strat. | Depletion | 40-acre spacing units. Well in center of spacing unit with 150′ topographic tolerance. (Orders 16-62, 19-63.) | |
| Sunburst (Jur.) Gas | 1 | Strat. | Depletion | | |
| Sawtooth (Jur.) Gas | 1 | Strat. | Depletion | State-wide. | |
| **FLAT LAKE** | | | | | |
| Nesson (Miss.) | 1 | Strat. | Partial Water Drive | 160-acre spacing units; well location in center of NE¼ of quarter section with 200′ topographic tolerance. Wells no closer than 961′ to North Dakota state line and no closer than 1600′ to Canadian line. (Orders 10-65 amended, 43-65, 23-66, 33-66.) | Excess salt water disposed into Muddy, Dakota, or Lakota formations. (Orders 39-64, 39-66.) Unit operation for eastern part of field. (Order 7-71.) |
| Ratcliffe (Miss.) | 52 | Structural-Strat. | Partial Water Drive | | |
| (Shut-in) | 5 | | | | |
| **FLAT LAKE, SOUTH** | | | | | |
| Ratcliffe (Miss.) | 6 | Structural-Strat. | Partial Water Drive | Same as Flat Lake spacing. (Order 2-67.) | Excess salt water disposed into Muddy, Dakota, or Lakota. (Order 19-67.) |
| **FRANNIE** (Mont. Portion) | | | | | |
| Tensleep (Penn.) | 1 | Structural | Comb. Water Drive and Gravity Drainage | 10-acre spacing units; well location in center of each unit with 100′ topographic tolerance. (Order 35-63.) | Unitized for waterflood of Phosphoria-Tensleep formations using produced fluids. (Order 21-70.) |
| **FRED & GEORGE CREEK** | | | | | |
| Sunburst (L. Cret.) Oil & Gas | 15 | Strat. | Depletion | Oil: 40-acre spacing units; well location in center of unit with 250′ topographic tolerance. (Orders 29-63, 1-65.) | Sunburst waterflood initiated July, 1970, using water from Madison, (Order 13-70) and Eagle water. (Order 27-71.) |
| (Shut-in) | 2 | | | | |
| Swift (U. Jur.) Oil & Gas | 13 | Strat. | Depletion | State-wide. | |
| **FROID, SOUTH** | | | | | |
| Red River (Ord.) | 1 | Structural-Strat. | Depletion | State-wide. | None |

| Field, Formation, Age | | No. Prod. Wells | Type of Trap | Probable Drive Mechanism | Spacing Regulations, Field Rules, and Remarks | Secondary Recovery or Water Disposal |
|---|---|---|---|---|---|---|
| **FT. GILBERT** | | | | | | |
| Red River (Ord.) | | 2 | Structural-Strat. | Depletion | State-wide. | None |
| | (Shut-in) | 1 | | | | |
| **GAGE** | | | | | | |
| Amsden (Penn.) | | 1 | Structural | Water Drive | State-wide. | None |
| **GAS CITY** | | | | | | |
| Red River (Ord.) | | 17 | Structural | Depletion-Water Drive | 80-acre spacing units consisting of E½ and W½ of quarter sections; well location in NW¼ and SE¼ of quarter section; 150′ topographic tolerance. Spacing waived and state-wide Rules 213 (Deviation), 218 (Commingling) and 219 (Dual Completion) are waived in unitized portion of field. (Order 29-62.) | Excess produced water disposed into Judith River formation. (Orders 32-61, 20-64.) Waterflood using produced water and Madison water. (Order 16-69.) |
| **GIRARD** | | | | | | |
| Red River (Ord.) | | 1 | Structural-Strat. | Depletion-Water Drive | State-wide. | None |
| **GLENDIVE** | | | | | | |
| Red River (Ord.) Oil & Gas | | 14 | Structural-Strat. | Depletion-Water Drive | 80-acre spacing units consisting of any two adjacent quarter-quarter sections; wells located in center of NE¼ and SW¼ of each quarter section with 75′ topographic tolerance. (Orders 27-55, 19-62, 58-62, 20-66.) | Excess produced water disposed into Swift, Dakota and Judith River formations. (Orders 16-56, 16-63, 40-A-70.) |
| | (Shut-in) | 1 | | | | |
| **GOLD BUTTE** | | | | | | |
| Bow Island (L. Cret.) | | 1 | Structural | Water Drive? | 640-acre spacing, well location any quarter-quarter section cornering on center of section. (Order 26-59 ) | None |
| Swift (U. Jur.) Gas | (Shut-in) | 1 | Structural | Water Drive? | | |
| **GOLDEN DOME** | | | | | | |
| Eagle (U. Cret.) Gas | (Shut-in) | 2 | Structural-Strat. | | 160-acre spacing; 660′ from spacing unit boundary. | None |
| **GOOSE LAKE** | | | | | | |
| Ratcliffe (Miss.) Oil & Gas | | 28 | Structural-Strat. | Partial Water Drive | Unitized. (Order 17-72.) | Excess produced water disposed into Mission Canyon and Dakota formations. (Orders 12-64, 14-66, 12-68.) |
| | (Shut-in) | 4 | | | | |
| **GRABEN COULEE** | | | | | | |
| Sunburst (L. Cret.) | | 1 | Structural-Strat. | Depletion | 40-acre spacing units; well location no closer than 330′ from legal subdivision.<br>(Cut Bank and Madison) Oil: 330′ from boundary of legal subdivision and 650′ from any other well in same reservoir and on same lease. 75′ topographic tolerance. (Order 73-62.) | None |
| Cut Bank (L. Cret.) | | 17 | Structural-Strat. | Depletion | | |
| Cut Bank-Madison (Dual) | | 3 | Structural-Strat. | Depletion | | |

| Field, Formation, Age | No. Prod. Wells | Type of Trap | Probable Drive Mechanism | Spacing Regulations, Field Rules, and Remarks | Secondary Recovery or Water Disposal |
|---|---|---|---|---|---|
| **GRANDVIEW** | | | | | |
| Bow Island (L. Cret.) Gas (2 Zones) | 5 | Structural | Unknown | 320-acre spacing units aligned in a north-south direction; well locations no closer than 660′ to a spacing unit boundary. (Order 49-67.) Dual completion with Bow Island. | None |
| Madison (Miss.) Gas | 1 | Structural | Unknown | | |
| **GYPSY BASIN** | | | | | |
| Sunburst (L. Cret.) Oil & Gas | 1 | Structural-Strat. | Comb. Water Drive and Depletion | 330′ from lease lines and 660′ between wells in same formation. Only two wells per quarter-quarter section. (Order 7-66.) | Order 6-64 permits injection of excessive gas (produced with oil) into the Sunburst gas cap. |
| Swift (U. Jur.) | 1 | Structural-Strat. | Comb. Water Drive and Depletion | Same as Sunburst | |
| Sawtooth-Madison (Jur. & Miss.) Oil & Gas | 2 | Structural-Strat. | Comb. Water Drive and Depletion | (Sawtooth-Madison) Oil: 40-acre spacing units; wells no closer than 330′ from lease line. (Order 7-66.) (Sawtooth-Madison) Gas: 160-acre spacing units; well locations in center of any quarter-quarter section in each 160-acre unit, 2340′ between gas wells. 150′ topographic tolerance. (Order 13-59.) | |
| **HARDIN** | | | | | |
| Frontier (U. Cret.) Gas<br>(Shut-in) | 30<br>18 | Strat. | Volumetric | State-wide. | None |
| **HAVRE** | | | | | |
| Eagle (U. Cret.) | 1 | Structural-Strat. | Water Drive Depletion | State-wide. Single well used in town of Havre. | None |
| **HAY CREEK** | | | | | |
| Mission Canyon (Miss.) | 1 | Structural | Depletion | State-wide. | Water disposal into Red River. (Order 20A-70.) |
| Red River (Ord.) | 1 | Structural | Volumetric Water Drive | 320acre spacing, any two adjacent quarter sections, direction to be determined by operator. Location no closer than 660′ from unit boundary. (Orders 15-69, 27-73.) Gas to Brorson plant. | |
| **HIAWATHA** | | | | | |
| Tyler (L. Penn.) (2 Sands) | 4 | Structural-Strat. | Depletion | State-wide. | None |
| **HIBBARD** | | | | | |
| Amsden (Penn.) | 1 | Unknown | Water Drive | State-wide. | None |
| **INJUN CREEK** | | | | | |
| Tyler (Penn.) Abandoned. | 0 | Strat | Depletion | State-wide. | None |

| Field, Formation, Age | No. Prod. Wells | Type of Trap | Probable Drive Mechanism | Spacing Regulations, Field Rules, and Remarks | Secondary Recovery or Water Disposal |
|---|---|---|---|---|---|
| **IVANHOE** | | | | | |
| Marrison (U. Jur.) | 1 | Structural-Strat. | Depletion | 40-acre spacing unit for production from any one common formation; well location in center of unit with 200′ topographic tolerance. (Order 7-60 and 9-56). | Waterflood of Tyler B & C sands discontinued. |
| Amsden (L. Penn.) (Shut-in) | 1 | Structural-Strat. | Water Drive | | |
| Tyler (L. Penn.) | 9 | Structural-Strat. | Depletion | | |
| **JIM COULEE** | | | | | |
| Tyler (L. Penn.) | 20 | Structural-Strat. | Depletion<br>Water Drive | Unitized. (Order 18-72.) No well closer than 330′ from unit boundary. | Waterflood; produced and Third Cat Creek water. |
| **KEG COULEE** | | | | | |
| Tyler (Penn.) Oil & Gas | 19 | Strat. | Depletion | 40-acre spacing in southwest portion of field except that spacing is waived in unitized portion. (Orders 3-64, 4-64, 23-64.) 80-acre spacing in remainder of field with variable pattern. (Orders 11-60, 28-62.) Topographic tolerance varies from 100′ to 250′. (Orders 11-60. 4-64, 23-64.) Buffer zone waived. (Order 16-65.) | Three waterflood units. (Orders 3-64, 28-66, 10-69, 14-69.) Madison water injected. |
| (Shut-in) | 2 | | | | |
| **KEG COULEE, NORTH** | | | | | |
| Tyler (Penn.) | 2 | Strat. | Depletion | 40-acre spacing units; well location in center of spacing unit with 150′ topographic tolerance. (Order 46-64.) Buffer zone waived. (Order 16-65.) | None |
| **KEITH** (see East Keith) | | | | | |
| **KELLEY** | | | | | |
| Tyler (Penn.) | 3 | Strat. | Depletion | State-wide, 250′ topographic tolerance. (Order 15-67.) | Waterflood using Third Cat Creek water. (Order 8-69.) |
| **KEVIN-SUNBURST** | | | | | |
| Sunburst (L. Cret.) Oil & Gas | 40? | Strat. | Depletion | 9 wells per 40-acre tract; only 3 wells on any side of tract set back at least 220′ from line. Field delineated by (Orders 8-54, 28-55.) (Estimated 400 wells shut-in.) | There are five waterfloods in operation, using Madison water. (Orders 9-64, 17-64, 30-64, 36-65, 29-71.) |
| Swift (U. Jur.) | ? | Structure | | | |
| Sun River (Miss.) Oil & Gas | 367 | Structure-Strat. | Depletion | | |
| Gas only | 12 | | | | |
| (Shut-in) | ? | | | | |
| **KICKING HORSE** | | | | | |
| Sun River (Miss.) Gas | 1 | Structural | Depletion | 640-acre field (unit)) consisting of parts of four sections. All formations. (Order 4-70.) | None |
| **LAIRD CREEK** | | | | | |
| Swift (U. Jur.) Oil & Gas | 10 | Strat. | Depletion | State-wide. One shut-in gas well. | None |
| (Shut-in) | 1 | | | | |

| Field, Formation, Age | No. Prod. Wells | Type of Trap | Probable Drive Mechanism | Spacing Regulations, Field Rules, and Remarks | Secondary Recovery or Water Disposal |
|---|---|---|---|---|---|
| **LAKE BASIN, NORTH**<br>Eagle, Frontier (U. Cret.) Gas<br>(Shut-in) | 2<br>2 | Structural | Unknown | 640-acre spacing units consisting of one section. Locations 990′ from section line. (Order 3-74.) | None |
| **LANDSLIDE BUTTE**<br>Sun River (Miss.)<br>(Shut-in) | 2<br>1 | Unknown | Water Drive | State-wide. | None |
| **LEARY**<br>Muddy (L. Cret.) | 3 | Structural-Strat. | Depletion | 80-acre spacing with locations in NE¼ and SW¼ of each quarter section, 200′ topographic tolerance. (Order 12-69, 19-70.) | None |
| **LISCOM CREEK**<br>Shannon (U. Cret.) Gas | 7 | Structural-Strat. | Depletion | Spacing, one well per 640 acres. | None |
| **LITTLE BEAVER** (Mont. Portion)<br>Red River (Ord.) | 23 | Structural | Comb. Depletion and Water Drive | Spacing waived and General Rules 213 (Deviation), 218 (Commingling) and 219 (Dual Completion) are suspended until present Unit Agreement becomes inoperative. (Order 41-62.) | Waterflood of the Red River was commenced in August, 1967. (Order 3-66.) Minnelusa water. |
| **LITTLE BEAVER, EAST**<br>(Montana Portion)<br>Red River (Ord.) | 10 | Structural | Comb. Depletion and Water Drive | Same as for Little Beaver. (Order 42-62.) | Waterflood of the Red River was commenced in April, 1965. (Order 33-64.) |
| **LITTLE WALL CREEK**<br>Tyler (Penn.) | 1 | Strat. | Depletion Water Drive | State-wide. | None |
| **LODGE GRASS**<br>Tensleep (Penn.) | 1 | Structural-Strat. | Water Drive | 160-acre spacing units; well locations vary according to areas; 250′ topographic tolerance. (Orders 26-64, 26-65.) | None |
| **LONETREE CREEK**<br>Red River (Ord.) | 7 | Structural | Depletion | 320-acre spacing, wells 660′ from spacing boundary, 2000′ between wells. (Order 29-72.) | None |

| Field, Formation, Age | No. Prod. Wells | Type of Trap | Probable Drive Mechanism | Spacing Regulations, Field Rules, and Remarks | Secondary Recovery or Water Disposal |
|---|---|---|---|---|---|
| **LOOKOUT BUTTE** | | | | | |
| (Includes Coral Creek Unit)<br>Madison (Miss.) | 3 | Structural | Water Drive | State-wide spacing. | Water disposal into Madison. (Order 68-62.) |
| Interlake, Red River (Sil.-Ord.) | 27 | Structural | Comb. Depletion and Water Drive | 160-acre spacing; well location in center of SE¼ of each quarter section with 150′ topographic tolerance. (Order 21-62.) Coral Creek Unit not subject to spacing rules. Redelineated per (Order 7-63.) | Waterflood of Silurian-Ordovician approved in 1966. (Order 35-66.) Water from Minnelusa. |
| **MASON LAKE** | | | | | |
| Lakota (L. Cret.) | 1 | Structural | Water Drive | State-wide. | None |
| **MELSTONE** | | | | | |
| Tyler (Penn.) | 3 | Structural-Strat. | Depletion | State-wide. | None |
| (Shut-in) | 1 | | | | |
| **MIDDLE BUTTE** | | | | | |
| Blackleaf (Cret.) Gas | 1 | Structural | Volumetric | 320-acre spacing units consisting of E½ & W½ of each section; well location in center of either of the inside quarter-quarter sections located in E½ of each spacing unit. 75′ topographic tolerance. (Order 3-60.) | None |
| Bow Island (Shut-in) | 2 | | | | |
| **MINERAL BENCH** | | | | | |
| Duperow (Dev.) | 1 | Structural | Water Drive | State-wide. | Water disposal into Dakota-Lakota per (Order 18-65.) |
| **MINERS COULEE** | | | | | |
| Sunburst (L. Cret.) | 1 | Strat. | Depletion | 40-acre spacing units consisting of quarter-quarter sections; well location no closer than 330′ from lease or property line and 660′ from any other well. (Order 9-66.) | None |
| Swift (U. Jur.) (Shut-in) | 3 | Strat. | Depletion | | |
| Madison (Miss.) (Shut-in) | 1 | Strat.? | Water Drive | | |
| **MONARCH** | | | | | |
| Mission Canyon (Miss.) | 1 | Structural-Strat. | Water Drive | 80-acre spacing units consisting of east and west half of quarter section. Well location in SW¼ & NE¼ of quarter section. Location within 660′ square at center of quarter section. (Order 18-61.) | Produced water is disposed into the salt water disposal system for the Pennel Field. |
| Interlake, Red River (Sil.-Ord.) | 12 | Structural-Strat. | | 160-acre spacing units consisting of a quarter section; well location in center of SW¼ of each quarter section with 175′ topographic tolerance. (Orders 12-59, 4-63.) | Waterflood initiated 12-1-73. (Order 23-73.) |
| **MOSBY** | | | | | |
| (See Cat Creek) | 12 | Structural-Strat. | Water Drive | Listed as part of Cat Creek. | Waterflood, 2nd Cat Creek sand. (Order 8-68.) Waterflood in Amsden. (Order 11-71.) |
| (Shut-in) | 4 | | | | |

| Field, Formation, Age | No. Prod. Wells | Type of Trap | Probable Drive Mechanism | Spacing Regulations, Field Rules, and Remarks | Secondary Recovery or Water Disposal |
|---|---|---|---|---|---|
| **MOSSER** | | | | | |
| Greybull (L. Cret.) | 4 | Structural | Water Drive | Spacing waived. Future development requires administrative approval of the Commission. (Order 27-62.) | None |
| **MT. LILLY** | | | | | |
| Madison (Miss.) Gas | 2 | Structural | Water Drive | 640-acre spacing, well location in approximate center of any of the four quarter-quarter sections adjoining center of section; 250′ topographic tolerance. (Order 37-63.) | None |
| **NOHLY** | | | | | |
| Red River (Ord.) | 1 | Structural | Volumetric Water Drive | State-wide. | None |
| **NORTH GUILDFORD** | | | | | |
| Sawtooth (M. Jur.) | 1 | Structural | Unknown | 320-acre specified spacing units. One well per unit 660′ from boundary, 2640′ between wells. (Order 9-58.) | None |
| **NORTH LAKE BASIN** | | | | | |
| (See Lake Basin, North) | | | | | |
| **NORTH WILLOW CREEK** | | | | | |
| (See Willow Creek, North) | | | | | |
| **OTIS CREEK** | | | | | |
| Red River (Ord.) | 2 | Structural | Depletion | State-wide. | None |
| **OTIS CREEK, SOUTH** | | | | | |
| Red River (Ord.) | 1 | Structural | Depletion | State-wide. | None |
| **OUTLOOK** | | | | | |
| Duperow (Dev.) | 2 | Structural-Strat. | Water Drive | State-wide. | Produced water is disposed into Dakota and Siluro-Devonian formations. (Orders 16-59, 17-65, 36-66.) |
| Winnipegosis (Dev.) | 3 | Structural-Strat. | Water Drive | State-wide. | |
| Silurian-Devonian<br>(Shut-in) | 3<br>2 | Structural-Strat. | Water Drive | 160-acre spacing units; well location in center of either SW¼ or NE¼ of each quarter section; 175′ topographic tolerance. (Order 19-59A.) | |
| **OUTLOOK, SOUTH** | | | | | |
| Winnipegosis (Dev.)<br>Interlake (Sil.)<br>(Dual Completion with Dev. zone) | 1 | Structural | Water Drive | 160-acre spacing; permitted wells in either SW¼ or NE¼ of quarter section; 175′ topographic tolerance. (Order 19-59A.) Commingling permitted. (Order 45-64.) | Produced water disposed into Muddy and Dakota formations. (Orders 19-59, 17-65.) |
| Red River (Ord.) (Shut-in) | 1 | Structural | Water Drive | | |
| **OUTLOOK, WEST** | | | | | |
| Winnipegosis (Dev.) | 2 | Structural | Water Drive | 160-acre spacing units consisting of quarter sections; permitted wells in either SW¼ or NE¼ with a tolerance of 175′. (Order 7-67.) | Produced water disposed into Dakota formation. (Order 42-66.) |

| Field, Formation, Age | No. Prod. Wells | Type of Trap | Probable Drive Mechanism | Spacing Regulations, Field Rules, and Remarks | Secondary Recovery or Water Disposal |
|---|---|---|---|---|---|
| **PENNEL** | | | | | |
| Mission Canyon (Miss.) | 8 | Structural | Depletion-Water Drive | 80-acre spacing units consisting of east and west half of quarter section; wells located in center of SE¼ and NW¼ of quarter sections with 150′ topographic tolerance. (Order 15-61.) | Produced water is being injected into Dakota, Siluro-Ordovician and Madisan formations. (Orders 16-60, 46-62, 68-62, 36-63, 13-64.) Waterflood for Siluro-Ordovician approved Nov. 1968. (Order 24-68.) |
| Siluro-Ordovician Oil & Gas | 99 | Structural | Depletion-Water Drive | 80-acre spacing units on west side and 160-acre spacing units on east side of paol. Wells to be located in SE¼ and NW¼ of each quarter section (80 acres) and in SE¼ of each quarter section on 160-acre spacing. (Orders 1-56, 8-56, 15-61, 20-62, 4-63, 7-63.) Commingling approved. (Order 59-62.) | |
| **PINE** | | | | | |
| Mission Canyon (Miss.) Oil & Gas | 4 | Structural | Water Drive | Spacing and General Rules 213, 218 and 219 are waived within the Pine Unit. 80-acre spacing units outside of unit area; well location in NW¼ and SE¼ of quarter section; 150′ topographic tolerance. (Order 37-62.) Gas through extraction plant. | A waterflood program for the south area was started in 1959. A waterflood of the north area was approved in 1967. (Orders 13-68, 1-60, 8-62, 32-67.) |
| Siluro-Ordovician Oil & Gas | 105 | Structural | Depletion-Water Drive | | |
| **PLEVNA** | | | | | |
| Judith River (U. Cret.) Gas | 20 | Structural | Water Drive | 1200′ from legal subdivision line; 2400′ from other wells on same lease or unit; 75′ topographic tolerance. (Orders 34-54, 4-57.) | None |
| **PONDERA** | | | | | |
| Sun River (Miss.) Oil & Gas | 280 | Structural-Strat. | Depletion-Water Drive | Oil: 220′ from legal subdivision, 430′ from other wells in same reservoir on same lease; 75′ topographic tolerance. Porter Bench Extension: 330′ from legal subdivision line; 650′ from other wells in same reservoir on same lease or unit; 75′ topographic tolerance. (Order 9-54.)<br>Gas: 1320′ from legal subdivision; 3700′ from other wells on same lease or unit; 75′ topographic tolerance. (Order 9-54.) General Rules 207, 211, 219, 221, 223, and 224 do not apply. | Produced water injected into lower Madisan. (Orders 11-56, 15-56, 4-65, 4-66, 20-A-71.) A small waterflood project has been in operation since 1959, using Madison water. |
| **PONDERA COULEE** | | | | | |
| Sun River (Miss.) (Shut-in) | 4 | Structural | Water Drive | 330′ from legal subdivision lines or upon a 10-acre spacing pattern; 75′ topographic tolerance. (Order 5-62.) | None |
| **POPLAR, EAST** | | | | | |
| Madison (Miss.) (Charles & Mission Canyon fms.) | 58 | Structural | Water Drive | State-wide spacing; field delineated by (Order 7-55.) | Unitized in 1955. (Order 7-55.) Excess produced water has been injected into the Dakota and Judith River formations. (Orders 1-55, 5-57, 7-57, 14-61, 21-61, 34-61, 10-62, 51-67.) |
| Heath (Tyler) (Penn.) | 3 | Structural-Strat. | Water Drive | | |
| Nisku (Dev.) | 1 | Structural | Water Drive | | |

| Field, Formation, Age | No. Prod. Wells | Type of Trap | Probable Drive Mechanism | Spacing Regulations, Field Rules, and Remarks | Secondary Recovery or Water Disposal |
|---|---|---|---|---|---|
| **POPLAR, NORTHWEST** | | | | | |
| Charles (Miss.)<br>("C" or McGowan Zone) | 3 | Structural | Water Drive | 80-acre spacing units for McGowan or "C" zone consisting of E½ and W½ of each quarter section; permitted wells in NW¼ and SE¼ of quarter section. All other formations on state-wide spacing. (Order 18-55.) | None |
| **PRAIRIE ELK** | | | | | |
| Charles "C" (Miss.) (Shut-in) | 1 | Unknown | Water Drive | State-wide. | None |
| **PRICHARD CREEK** | | | | | |
| Sunburst (L. Cret.) Oil & Gas<br>(Shut-in) | 5<br>1 | Strat. | Depletion | Well locations subject to administrative approval. | None. Unitized as to Sunburst for water injection. (Order 7-73.) |
| **PUMPKIN CREEK** | | | | | |
| Shannon (U. Cret.) Gas (Shut-in) | 8 | Structural-Strat. | Depletion | State-wide. Delineated. (Order 10-71.) | None |
| **PUTNAM** | | | | | |
| Interlake (Sil.) | 1 | Structural | Volumetric Water Drive | State-wide. | None. Gas to McCulloch Gas Processing Corp. Brorson Plant. |
| Red River (Ord.) (Shut-in) | 1 | Structural | Volumetric Water Drive | | |
| **RABBIT HILLS** | | | | | |
| Sawtooth (Jur.) | 3 | Structural Strat. | Volumetric Water Drive | 160-acre spacing unit. Well location 660′ from spacing unit boundary. (Order 17-73.) | None |
| **RAGGED POINT** | | | | | |
| Tyler (Penn.) | 13 | Strat. | Depletion | 40-acre spacing units; 75′ topographic tolerance. (Order 8-59.) Spacing waived for Tyler "A" sand reservoir within Tyler "A" Sand Unit except no well can be closer than 660′ to Unit boundary. (Order 35-65.) | A waterflood project of the Tyler "A" sand was commenced in February, 1966, using Third Cat Creek water. (Order 35-65.) |
| Kibbey (Miss.) Plugged | 0 | Structural | Water Drive | State-wide spacing. (Order 15-54.) Commingling of production from Tyler and Kibbey permitted in one well per (Order 11-65.) | |
| **RAPELJE** | | | | | |
| Claggett, Eagle, Judith River, Virgelle (U. Cret.) | 9 | Structural-Strat. | Water Drive | 160-acre spacing. Wells no closer than 990′ to unit boundary. (Order 29-73.) | None |
| **RATTLESNAKE COULEE** | | | | | |
| Sunburst (L. Cret.) | 2 | Strat. | Depletion | State-wide. | None |
| **RAYMOND** | | | | | |
| Nisku (Dev.)<br>Duperow (Dev.)<br>Winnipegosis (Dev.)<br>Red River (Ord.) | 2<br>1<br>3<br>1 | Structural-Strat. | Depletion Water Drive | 320-acre spacing units. Wells 660′ from spacing unit boundary. (Order 38-72.) | None |
| **REAGAN** | | | | | |
| Sun River (Miss.) Oil<br>(Shut-in)<br>Gas | 44<br>19<br>1 | Structural | Gas Cap-Water Drive | State-wide. (Order 17-54.) | A pressure maintenance project utilizing gas injection was started in 1961. (Order 21-60.) Waterflood. (Order 27-72.) |

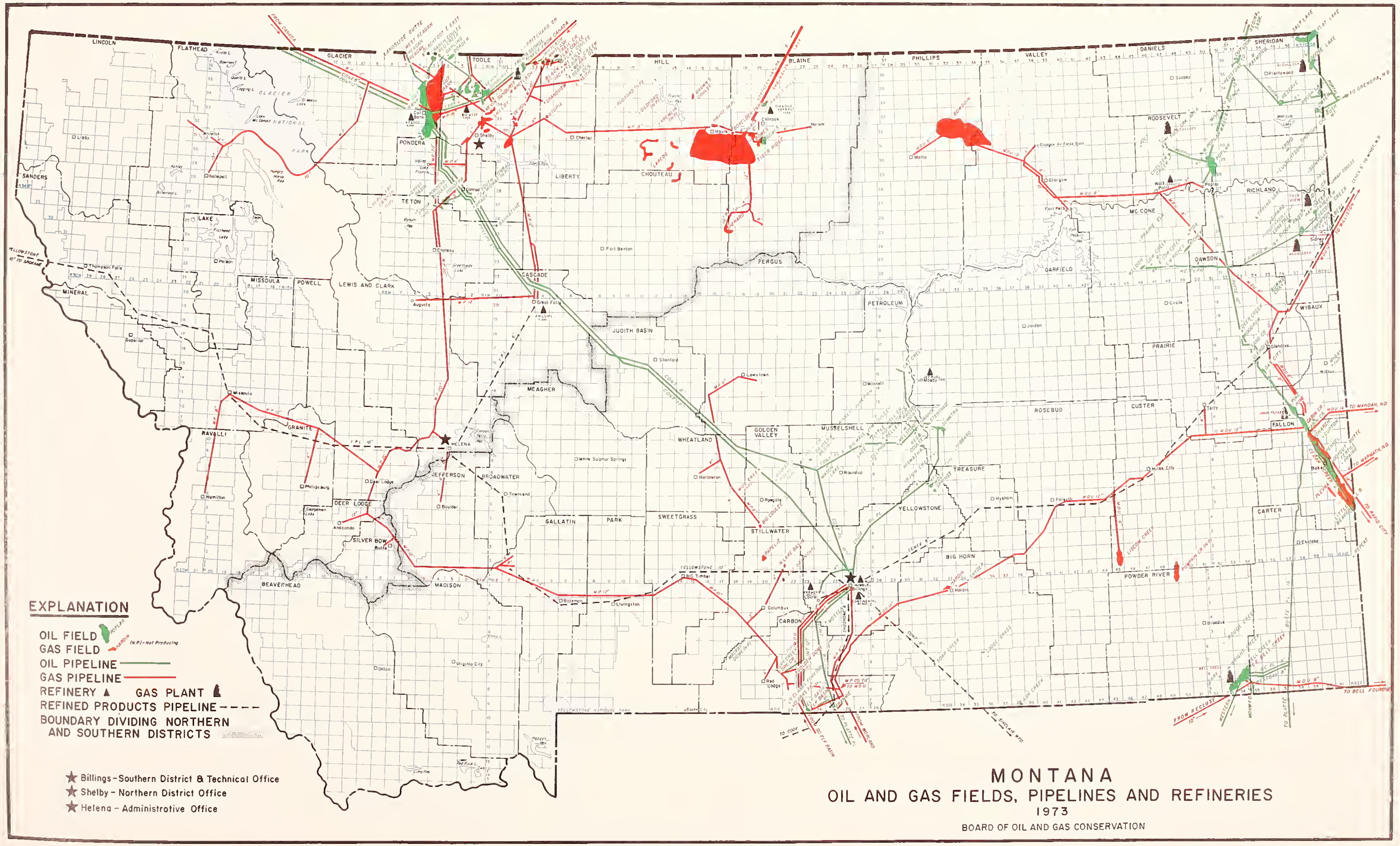
| Field, Formation, Age | | No. Prod. Wells | Type of Trap | Probable Drive Mechanism | Spacing Regulations, Field Rules, and Remarks | Secondary Recovery or Water Disposal |
|---|---|---|---|---|---|---|
| **REAGAN, WEST** | | | | | | |
| Blackleaf (U. Cret.) Gas | | 10 | Strat. | Depletion | State-wide. Injected into Reagan field as secondary recovery agent. | None |
| **RED CREEK** | | | | | | |
| Cut Bank (L. Cret.) Oil & Gas | | 7 | Strat. | Depletion | 40-acre spacing units; wells in center of spacing unit with 75′ topographic or obstruction tolerance; spacing and field rules waived for unitized portion. (Orders 16-58, 73-62, 31-64, 5-70.) | Excess produced water injected into Bow Island and Madison. (Orders 22-63, 37-64.) A waterflood project in the Cut Bank sand was initiated in June, 1965, using Madison water. |
| | (Shut-in) | 2 | | | | |
| Sun River (Miss.) Oil & Gas | | 12 | Structural | Water Drive | | |
| | (Shut-in) | 9 | | | | |
| **RED FOX** | | | | | | |
| Nisku (Dev.) | | 1 | Structural | Water Drive | Field consists of one 160-acre spacing unit which straddles the section line. (Order 20-67.) | None |
| **REDSTONE** | | | | | | |
| Winnipegosis (Dev.) | (Shut-in) | 1 | Unknown | Water Drive | One well per 160-acre unit, but no closer than 660′ from unit boundary. | None |
| **REPEAT** | | | | | | |
| Red River (Ord.) | | 1 | Unknown | Water Drive | State-wide. | None |
| **RESERVE** | | | | | | |
| Winnipegosis (Dev.) | (Shut-in) | 1 | Structural-Strat. | Water Drive | 160-acre spacing units; permitted well within 1320′ square in center of quarter section. Commingling of Red River and Interlake production permitted on individual well basis. (Orders 34-66, 27-67.) | Excess water injected into Dakota sand. (Order 23-A-67.) |
| Interlake (Sil.) | (Shut-in) | 1 | Structural-Strat. | Water Drive | | |
| Red River (Ord.) | | 4 | Structural-Strat. | Water Drive | | |
| | (Shut-in) | 1 | | | | |
| **RICHEY** | | | | | | |
| Charles (Miss.) | | 1 | Structural | Water Drive | State-wide. | Original 80-acre spacing revoked. (Order 11-73.) |
| **RICHEY, SOUTHWEST** | | | | | | |
| Interlake, Dawson Bay (Sil.) (Dev.) | | 5 | Structural | Depletion | 160-acre spacing units; wells no closer than 900′ from boundary of spacing unit. (Order 25-62.) | A waterflood project in the Interlake and Dawson Bay was started in 1965. (Order 34-65.) |
| | (Shut-in) | 1 | | | | |
| **RIPRAP COULEE** | | | | | | |
| Ratcliffe (Miss.) | | 1 | Structural-Strat. | Depletion | State-wide. | None |
| **ROSCOE** | | | | | | |
| Lakota (L. Cret.) | (Shut-in) | 1 | Structural | Water Drive | State-wide. | None |
| **ROUGH CREEK** | | | | | | |
| Muddy (L. Cret.) | (Shut-in) | 1 | Structural Strat. | Depletion | State-wide. Formerly called Duncan Creek. | None |

| Field, Formation, Age | No. Prod. Wells | Type of Trap | Probable Drive Mechanism | Spacing Regulations, Field Rules, and Remarks | Secondary Recovery or Water Disposal |
|---|---|---|---|---|---|
| **RUDYARD** | | | | | |
| Sawtooth (M. Jur.) Gas (Shut-in) | 3 | Structural | Volumetric | 640-acre spacing units consisting of one section; well location in center of NW¼ of section with 75′ topographic tolerance. (Order 2-58.) | None |
| **RUSH MOUNTAIN** | | | | | |
| Winnipegosis (M. Dev.)<br>Red River (Ord.) | 1 | Structural | Volumetric-Water Drive | State-wide. Dual zone completion in discovery well. | Excess water injected into Dakota sand. (Order 5-A-71.) |
| **SALT LAKE** | | | | | |
| Bakken-Nisku (Miss.-Dev.) | 3 | Structural | Water Drive | State-wide. | None |
| **SAND CREEK** | | | | | |
| Interlake, Red River (Sil.) (Ord.) (Shut-in) | 2<br>6 | Structural | Water Drive | 80-acre spacing units consisting of any two adjacent quarter-quarter sections. Wells located in center of NW¼ and SE¼ of each quarter section. (Order 16-59.) Commingling of production from Interlake and Red River authorized per (Order 49-62.) | Excess produced water is injected into the Swift formation. (Order 9-61.) |
| **SECOND CREEK** | | | | | |
| Red River (Ord.) | 1 | Structural | Volumetric Water Drive | State-wide. | None |
| **SHELBY AREA** | | | | | |
| Sunburst (L. Cret.) Gas<br>Swift (Jur.) Gas | 33 | Structural-Strat. | Depletion | State-wide. Field outline not delineated. A few small Swift sand wells commingled with Sunburst. | None |
| **SHERARD** | | | | | |
| Eagle (U. Cret.) Gas | 12 | Structural-Strat. | Volumetric Water Drive | 640-acre spacing units; 990′ from section line. (Order 1-74.) | None |
| **SHOTGUN CREEK** | | | | | |
| Ratcliffe (Miss.) (Shut-in) | 1 | Structural | Water Drive | State-wide. | None |
| **SIDNEY** | | | | | |
| Mission Canyon (Miss.) (Shut-in) | 1 | Structural | Water Drive | State-wide. | None |
| **SIOUX PASS** | | | | | |
| Interlake (Sil.)<br>Red River (Ord.) | 1<br>1 | Structural | Volumetric Water Drive | State-wide. | None |
| **SNYDER** | | | | | |
| Tensleep (Penn.) | 3 | Structural | Water Drive | 10-acre spacing units with center 5-spot permitted; 150′ topographic tolerance. (Order 45-62.) | None |
| **SOAP CREEK** | | | | | |
| Tensleep, Amsden, Madison (Penn.) (Penn.) (Miss.) | 12 | Structural | Water Drive | One well per 10-acre spacing unit per producing formation; well location in center of spacing unit with 100′ topographic tolerance. (Order 26-60.) | None |

| Field, Formation, Age | No. Prod. Wells | Type of Trap | Prabable Drive Mechanism | Spacing Regulations, Field Rules, and Remarks | Secondary Recavery or Water Disposal |
|---|---|---|---|---|---|
| **SPRING LAKE** | | | | | |
| Nisku (Dev.) (Shut-in) | 1 | Structural | Depletion | One well per 160-acre spacing unit. Well location anywhere within 840′ square in center of spacing unit. (Order 6-63.) | None |
| Red River (Ord.) | 2 | Structural | Depletion | | |
| **SQUAW COULEE**<br>(Now included as part of Tiger Ridge Field.) (Order 10-70.) | | | | | |
| **STENSVAD** | | | | | |
| Tyler (Penn.) | 8 | Strat. | Depletion | 40-acre spacing units; well location in center of spacing unit with 200′ tolerance. (Orders 2-59, 7-60.) Wells may be drilled anywhere within waterflood unit boundary, no closer than 660′ from unit boundary. (Orders 5-65, Amended.) | A waterflood operation has been in progress since 1963, using Madison water. (Orders 48-67, 9-67.) |
| (Shut-in) | 9 | | | | |
| **SUMATRA** | | | | | |
| Tyler (Penn.) Oil & Gas | 79 | Strat. | Depletion | 40-acre spacing units; well located in center of unit with 75′ tolerance. (Order 14-58.) | Four waterflood units using Madison water. (Orders 48-67, 6-69, 15-69, 19-69, 3-70.) |
| **TIGER RIDGE** | | | | | |
| Judith River (U. Cret.) Gas | 6 | Structural-Strat. | Depletion-Water Drive | 160-acre spacing; location no closer than 660′ to unit boundary. (Order 32-73.)<br>State-wide, for part not unitized. Two units: (Order 11-72 and 41-72.) Wells 990′ from unit boundary. | |
| Eagle (U. Cret.) Gas | 123 | Structural-Strat. | Depletion-Water Drive | Originally one well per section within 2640′ square in center of each unit and no closer than 1320′ from boundary of unit. Changed to state-wide spacing by (Order 10-70.) | (Orders 17-67, 23-68, 10-70.) |
| (Shut-in) | 37 | | | | |
| Sawtooth (Jur.) Oil (Shut-in) | 1 | Structural-Strat. | Water Drive | State-wide. | |
| **TRAIL CREEK** | | | | | |
| Sunburst (L. Cret.) Gas | 2 | Structural-Strat. | Water Drive-Depletion | One well per 320 acres consisting of S½ and N½ of each governmental section but no closer than 990′ from spacing boundary. (Order 33-70.) | None |
| **TULE CREEK** | | | | | |
| Nisku (Dev.) | 5 | Structural | Water Drive | 160-acre spacing units with permitted well anywhere within 1320′ square in center of each unit. (Orders 26-62, 6-65, 11-67.) | Produced water injected into Dakota and Judith River formations. (Orders 12-66, 24-67.) |
| (Shut-in) | 1 | | | | |
| **TULE CREEK, EAST** | | | | | |
| Nisku (Dev.) | 2 | Structural | Water Drive | 160-acre spacing units with permitted well anywhere within 1320′ square in center of each unit. (Orders 40-64, 6-65.) | Water injected into Judith River formation. (Order 13-68.) |

| Field, Formation, Age | No. Prod. Wells | Type of Trap | Probable Drive Mechanism | Spacing Regulations, Field Rules, and Remarks | Secondary Recovery or Water Disposal |
|---|---|---|---|---|---|
| **TULE CREEK, SOUTH** | | | | | |
| Nisku (Dev.) | 3 | Structural | Water Drive | 160-acre spacing units with permitted well anywhere within a 1320′ square in center of each unit. | Authority given to dispose of produced water into Dakota. (Order 44-64.) Into Judith River formation. (Order 29-67.) |
| **UTOPIA** | | | | | |
| Sawtooth (Jur.) Gas<br>Madison (Miss.) | } 4 | Structural | Depletion<br>Water Drive | State-wide. Two wells produced small amount of oil from Swift sand. | None |
| **VIDA** | | | | | |
| Interlake (Sil.) | 2 | Structural | Water Drive | 160-acre spacing units with permitted well anywhere within an 840′ square in center of each unit. (Order 39-63.) | Water injected into Lakota formation. (Order 14-68.) |
| **VOLT** | | | | | |
| Nisku (Dev.)<br>(Shut-in) | 4<br>2 | Structural | Water Drive | 160-acre spacing units with permitted well anywhere within a 1320′ square in center of each unit. (Orders 27-64, 6-65, 32-65.) | Excess produced water is disposed into Judith River. (Order 3-65.) |
| Charles "C" (Miss.) | 1 | Structural | Water Drive | State-wide. | |
| **WEED CREEK** | | | | | |
| Amsden (L. Penn.) Abandoned | 0 | Structural | Water Drive | State-wide. | None |
| **WELDON** | | | | | |
| Kibbey (Miss.)<br>(Shut-in) | 3<br>9 | Structural | Partial Water Drive | 80-acre spacing unit; each quarter section divided into two separate units running in either a north-south or east-west direction; well location in center of NE¼ and SW¼ of quarter section with 200′ topographic tolerance. (Order 9-65.) | Excess produced water is disposed into the Dakota, Lakota, Morrison, and Charles formations. (Orders 31-65, 47-65, 37-66, 16-67.) |
| **WEST BUTTE** | | | | | |
| Sunburst (L. Cret.) Oil | 1 | Structural-Strat. | Depletion | State-wide, except W½ Section 16 is considered a single spacing unit. | None |
| Sawtooth (Jur.) Gas<br>Madison (Miss.) Gas | 1 | Structural | Water Drive | Sawtooth-Madison gas commingled, unitized. (Order 5-72.) No well closer than 330′ from unit boundary. | |
| **WEST REAGAN**<br>(See Reagan, West) | | | | | |

| Field, Formation, Age | | No. Prod. Wells | Type of Trap | Probable Drive Mechanism | Spacing Regulations, Field Rules, and Remarks | Secondary Recovery or Water Disposal |
|---|---|---|---|---|---|---|
| **WHITLASH**<br>Bow Island, Kootenai, Swift (Cret.) (Jur.) | Oil<br>(Shut-in)<br>Gas<br>(Shut-in) | 40<br>7<br>5<br>3 | Structural-Strat. | Volumetric | Gas: 300′ from legal subdivision line and 2400′ between wells, 75′ topographic tolerance.<br>Oil: 330′ from legal subdivision line and 650′ between wells; 5-spot location at center of 40-acre tract permitted; 75′ topographic tolerance. General Rules 207, 211, 219, 221, 223, and 224 suspended. (Orders 16-54, 27-70.) | None |
| **WHITLASH, WEST**<br>Sunburst, Swift (Cret.) (Jur.)<br>Sawtooth (Jur.) | (Shut-in) Oil<br>Gas | 1<br>9 | Structural-Strat. | Volumetric | Gas: 160-acre spacing units consisting of quarter sections; well location anywhere within a 660′ square in center of spacing unit.<br>Oil: 330′ from legal subdivision line, 650′ between wells in same reservoir on same lease; 5-spot location permitted. (Orders 61-62, 22-65 as amended.) | None |
| **WILLOW CREEK, NORTH**<br>Tyler (Penn.) Oil | | 2 | Structural-Strat. | Depletion Water Drive | State-wide. | Pilotflood. (Order 19-72.) |
| **WILLS CREEK, SOUTH**<br>Interlake (Sil.) | | 2 | Structural | Partial Water Drive | 160-acre spacing units. Well location in center of SE¼ of each unit with 175′ topographic tolerance. (Orders 5-64, 30-66.) | Waterflood initiated 12-1-73. (Order 23-73.) |
| **WINNETT JUNCTION**<br>Tyler (Penn.) | | 3 | Strat. | Depletion Water Drive | State-wide. | None |
| **WOLF SPRINGS**<br>Amsden (Penn.) | | 2 | Structural | Water Drive | 80-acre spacing units consisting of N½ and S½ of each quarter section. Well location in center of NW¼ and SE¼ of each quarter section with 75′ topographic tolerance. (Orders 4-56, 9-59.) | None |
| **WOODROW**<br>Charles, Duperow, Interlake<br>Red River (Ord.) | <br><br>(Shut-in) | 1<br>1<br>4 | Structural | Water Drive | 80-acre spacing units consisting of any two adjacent quarter-quarter sections; well locations in center of NE¼ and SW¼ of each quarter section with 200′ topographic tolerance. (Order 47-62.) | Produced water injected into Dakota. (Order 48-62.) |
| **WRIGHT CREEK**<br>Muddy (L. Cret.) | <br>(Shut-in) | 4<br>1 | Structural-Strat. | Depletion Water Drive | 80-acre spacing consisting of N½ and S½ of quarter section with locations in NW¼ and SE¼ of each quarter section with 200′ tolerance. | None |



## EXPLANATION

OIL FIELD 🟩
GAS FIELD 🟥
OIL PIPELINE ——
GAS PIPELINE ——
REFINERY ▲ GAS PLANT ▲
REFINED PRODUCTS PIPELINE - - - -
BOUNDARY DIVIDING NORTHERN AND SOUTHERN DISTRICTS ▨

★ Billings - Southern District & Technical Office
★ Shelby - Northern District Office
★ Helena - Administrative Office

# MONTANA

## OIL AND GAS FIELDS, PIPELINES AND REFINERIES

1973

BOARD OF OIL AND GAS CONSERVATION

# STATE OF MONTANA – SUMMARY OF PRODUCING OIL FIELDS – 1973

MONTANA BOARD OF OIL AND GAS CONSERVATION

| LINE NO. | FIELD | COUNTY | PRODUCING FORMATION | YEAR OF DISCOVERY | DEPTH | GRAVITY °API | F.V.F. | NET PAY FT. | POROSITY (%) | Sw (%) | O.O.I.P. (BBLS/ACRE) | PRODUCTIVE AREA 1-1-74 (ACRES) | O.O.I.P. (M BBLS.) | RECOVERY FACTOR (%) PRIMARY | RECOVERY FACTOR (%) SECONDARY | ULTIMATE RECOVERY (M BBLS.) PRIMARY | ULTIMATE RECOVERY (M BBLS.) SECONDARY | ULTIMATE RECOVERY (M BBLS.) TOTAL | CUMULATIVE PRODUCTION 1-1-74 (M BBLS.) | RESERVES 1-1-74 (M BBLS.) | 1973 PRODUCTION (BBLS.) | 1973 PRODUCTION (BOPD) | ULTIMATE RECOVERY (BBLS./ ACRE) | ULTIMATE RECOVERY (BBLS. ACRE/FT.) | LINE NO. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | Ash Creek | Big Horn | Shannon (U. Cret.) | 1952 | 4,500 | 34 | 1.05 | 14 | 22 | 42 | 13,200 | 200 | 2,640 | 25 | 6 | 650 | 150 | 800 | 721 | 79 | 10,797 | 30 | 4,000 | 286 | 1 |
| 2 | Bainville | Roosevelt | Red River (Ord.) | 1969 | 10,300 | 45 | 1.75 | 38 | 15 | 34 | 16,680 | 320 | 5,340 | 7 | -- | 400 | -- | 400 | 256 | 144 | 25,394 | 70 | 1,250 | 33 | 2 |
| 3 | Bears Den | Liberty | Sunburst (L. Cret.) | 1924 | 2,300 | 39 | 1.08 | 20 | 12 | 35 | 11,210 | 200 | 2,240 | 22 | -- | 500 | -- | 500 | 385 | 115 | 11,197 | 31 | 2,500 | 125 | 3 |
| 4 | Bell Creek | Powder River | Muddy (Cret.) | 1967 | 4,400 | 36 | 1.11 | 10 | 26 | 23 | 13,990 | 16,000 | 223,840 | 26 | 26 | 58,000 | 58,000 | 116,000 | 59,529 | 56,471 | 8,137,047 | 22,293 | 7,250 | 725 | 4 |
| 5 | Benrud | Roosevelt | Nisku (Dev.) | 1961 | 7,700 | 43 | 1.41 | 22 | 16 | 30 | 13,560 | 80 | 1,080 | 21 | -- | 230 | -- | 230 | 200 | 30 | 9,047 | 25 | 2,880 | 131 | 5 |
| 6 | Benrud, East | Roosevelt | Nisku (Dev.) | 1962 | 7,500 | 46 | 1.37 | 22 | 15 | 30 | 13,080 | 480 | 6,280 | 48 | -- | 3,000 | -- | 3,000 | 1,639 | 1,361 | 157,129 | 430 | 6,250 | 284 | 6 |
| 7 | Benrud, Northeast | Roosevelt | Nisku (Dev.) | 1964 | 7,600 | 46 | 1.40 | 23 | 16 | 30 | 14,270 | 160 | 2,280 | 43 | -- | 980 | -- | 980 | 809 | 171 | 20,013 | 55 | 6,130 | 267 | 7 |
| 8 | Big Wall | Musselshell | Amsden (Penn.) | 1953 | 2,500 | 19 | 1.61 | 17 | 16 | 35 | 8,520 | 280 | 2,390 | 29 | -- | 700 | -- | 700 | 615 | 85 | 8,437 | 23 | 2,500 | 147 | 8 |
| 9 | Big Wall | Musselshell | Tyler (Penn.) | 1948 | 3,000 | 31 | 1.02 | 22 | 17 | 40 | 17,070 | 1,220 | 20,830 | 27 | 2 | 5,700 | 500 | 6,200 | 5,824 | 376 | 53,829 | 147 | 5,080 | 231 | 9 |
| 10 | Blackfoot | Glacier | Madison (Miss.) | 1955 | 3,600 | 25 | 1.15 | 8 | 14 | 40 | 4,530 | 480 | 2,170 | 36 | -- | 780 | -- | 1,200 | 1,013 | 187 | 16,217 | 44 | 1,630 | 204 | 10 |
| 11 | Blackfoot | Glacier | Cut Bank (L. Cret.) | 1955 | 3,500 | 30 | 1.11 | 15 | 15 | 35 | 10,220 | 160 | 1,640 | 26 | -- | 420 | -- |  |  |  |  |  | 2,630 | 175 | 11 |
| 12 | Bowes | Blaine | Sawtooth (M. Jur.) | 1949 | 3,300 | 19 | 1.02 | 37 | 12 | 31 | 23,300 | 3,760 | 87,610 | 8 | 2 | 7,000 | 1,600 | 8,600 | 7,729 | 871 | 85,798 | 235 | 2,290 | 62 | 12 |
| 13 | Brorson | Richland | Madison (Miss.) | 1954 | 9,600 | 32 | 1.40 | 40 | 5 | 40 | 6,650 | 1,120 | 7,450 | 12 | -- | 900 | -- | 900 | 666 | 234 | 37,345 | 102 | 800 | 20 | 13 |
| 14 | Brorson | Richland | Red River (Ord.) | 1968 | 12,600 | 48 | 1.70 | 20 | 10 | 35 | 5,930 | 1,440 | 8,540 | 23 | -- | 2,000 | -- | 2,000 | 1,600 | 400 | 105,946 | 290 | 1,390 | 70 | 14 |
| 15 | Brorson, South | Richland | Red River (Ord.) | 1968 | 12,600 | 48 | 1.70 | 20 | 12 | 30 | 7,670 | 480 | 3,680 | 34 | -- | 1,250 | -- | 1,250 | 766 | 484 | 87,798 | 240 | 2,600 | 130 | 15 |
| 16 | Brush Lake | Sheridan | Red River (Ord.) | 1969 | 11,400 | 40 | 1.50 | 30 | 14 | 35 | 14,120 | 2,240 | 31,630 | 8 | -- | 2,450 | -- | 2,450 | 1,264 | 1,186 | 169,615 | 465 | 1,090 | 36 | 16 |
| 17 | Burns Creek | Dawson | Red River (Ord.) | 1972 | 11,400 | 39 | 1.25 | 14 | 14 | 40 | 7,300 | 320 | 2,340 | 11 | -- | 250 | -- | 250 | 96 | 154 | 42,170 | 116 | 780 | 56 | 17 |
| 18 | Cabin Creek | Fallon | Siluro-Ordovician | 1953 | 9,000 | 33 | 1.20 | 50 | 13 | 30 | 29,420 | 7,620 | 224,180 | 23 | 13 | 51,000 | 29,000 | 80,000 | 52,796 | 27,204 | 2,230,521 | 1,392 | 10,500 | 210 | 18 |
| 19 | Cabin Creek | Fallon | Mission Canyon (Miss.) | 1956 | 7,300 | 33 | 1.13 | 25 | 11 | 30 | 13,220 | 2,260 | 29,880 | 47 | -- | 14,500 | -- | 14,500 | 12,453 | 2,047 | 508,246 | 632 | 6,420 | 257 | 19 |
| 20 | Canal | Richland | Red River (Ord.) | 1970 | 12,700 | 47 | 2.07 | 58 | 8 | 40 | 10,430 | 320 | 3,340 | 21 | -- | 700 | -- | 700 | 337 | 363 | 71,828 | 197 | 2,190 | 38 | 20 |
| 21 | Cat Creek (West Dome) | Petroleum | Kootenai (L. Cret.) | 1920 | 1,100 | 52 | 1.10 | 51 | 21 | 19 | 61,180 | 900 | 55,060 | 27 | 5 | 14,600 | 3,000 | 17,600 | 17,175 | 425 | 97,103 | 266 | 19,560 | 384 | 21 |
| 22 | Cat Creek (Antelope Dome) | Garfield | Kootenai (L. Cret.) | 1920 | 1,200 | 52 | 1.10 | 10 | 21 | 19 | 12,000 | 200 | 2,400 | 21 | 8 | 500 | 200 | 700 | 4,949 | 651 | 61,242 | 168 | 3,500 | 350 | 22 |
| 23 | Cat Creek | Petroleum, Garfield | Morrison (U. Jur.) | 1945 | 1,600 | 52 | 1.10 | 6 | 22 | 40 | 5,590 | 240 | 1,340 | 30 | -- | 400 | -- | 400 |  |  |  |  | 1,670 | 278 | 23 |
| 24 | Cat Creek | Petroleum, Garfield | Ellis (U. Jur.) | 1945 | 1,700 | 52 | 1.10 | 25 | 18 | 40 | 19,040 | 880 | 16,760 | 26 | -- | 4,400 | 100 | 4,500 |  |  |  |  | 5,110 | 204 | 24 |
| 25 | Cat Creek | Petroleum | Amsden (Penn.) | 1967 | 2,000 | 52 | 1.00 | 10 | 8 | 30 | 4,340 | 80 | 350 | 17 | 11 | 60 | 40 | 100 | 46 | 54 | 3,521 | 10 | 1,250 | 125 | 25 |
| 26 | Cow Creek | McCone | Charles (Miss.) | 1969 | 6,800 | 40 | 1.20 | 25 | 8 | 48 | 6,720 | 240 | 1,610 | 7 | -- | 125 | -- | 125 | 84 | 41 | 7,842 | 21 | 520 | 21 | 26 |
| 27 | Cow Creek, East | McCone | Kibbey (Miss.) | 1971 | 6,300 | 35 | 1.05 | 15 | 15 | 35 | 10,810 | 400 | 4,320 | 28 | -- | 1,200 | -- | 1,200 | 599 | 601 | 212,986 | 583 | 3,000 | 200 | 27 |
| 28 | Culbertson | Roosevelt | Red River (Ord.) | 1969 | 11,900 | 48 | 1.80 | 20 | 12 | 16 | 8,690 | 320 | 2,780 | 6 | -- | 175 | -- | 175 | 137 | 38 | 9,105 | 25 | 550 | 28 | 28 |
| 29 | Cupton | Fallon | Red River (Ord.) | 1955 | 9,600 | 38 | 1.25 | 40 | 12 | 30 | 20,850 | 1,280 | 26,690 | 5 | -- | 1,300 | -- | 1,300 | 710 | 590 | 94,222 | 258 | 1,020 | 26 | 29 |
| 30 | Cut Bank | Glacier, Toole, Pondera | Kootenai (L. Cret.) | 1932 | 2,900 | 31 | 1.09 | 18 | 15 | 35 | 12,490 | 49,000 | 612,000 | 20 | 11 | 125,000 | 67,500 | 192,500 | 131,649 | 60,851 | 3,916,348 | 10,727 | 3,930 | 218 | 30 |
| 31 | Cut Bank | Glacier, Toole | Madison (Miss.) | 1945 | 3,000 | 34 | 1.10 | 10 | 14 | 30 | 6,910 | 3,200 | 22,110 | 33 | -- | 7,300 | -- | 7,300 | 6,244 | 1,056 | 89,256 | 244 | 2,280 | 228 | 31 |
| 32 | Deer Creek | Dawson | Interlake (Sil.) | 1956 | 9,400 | 43 | 1.20 | 38 | 7 | 30 | 12,040 | 320 | 3,850 | 34 | -- | 1,300 | -- | 1,300 | 1,168 | 132 | 13,561 | 37 | 4,060 | 107 | 32 |
| 33 | Dwyer | Sheridan | Ratcliffe (Miss.) | 1960 | 8,000 | 37 | 1.32 | 38 | 11 | 56 | 10,810 | 3,840 | 41,510 | 11 | 3 | 4,500 | 1,300 | 5,800 | 5,159 | 641 | 151,122 | 414 | 1,510 | 40 | 33 |
| 34 | Elk Basin | Carbon | Frontier (U. Cret.) | 1915 | 1,200 | 45 | 1.16 | 30 | 21 | 20 | 33,710 | 120 | 4,050 | 37 | 30 | 1,500 | 1,200 | 2,700 | 1,447 | 1,253 | 31,546 | 86 | 22,500 | 750 | 34 |
| 35 | Elk Basin | Carbon | Tensleep (Penn.) | 1942 | 5,000 | 29 | 1.16 | 124 | 11 | 10 | 82,100 | 1,400 | 114,940 | -- | 48 | -- | 55,000 | 55,000 | 49,394 | 5,606 | 865,355 | 2,370 | 39,290 | 317 | 35 |
| 36 | Elk Basin | Carbon | Madison (Miss.) | 1942 | 5,300 | 28 | 1.12 | 224 | 12 | 9 | 169,430 | 920 | 155,880 | 9 | 6 | 14,000 | 9,000 | 23,000 | 16,131 | 6,869 | 489,568 | 1,341 | 25,000 | 112 | 36 |
| 37 | Elk Basin, Northwest | Carbon | Madison (Miss.) | 1947 | 6,200 | 35 | 1.08 | 124 | 12 | 35 | 69,480 | 200 | 13,900 | 7 | -- | 1,000 | -- | 1,000 | 918 | 82 | 7,994 | 22 | 5,000 | 40 | 37 |
| 38 | Elk Basin, Northwest | Carbon | Tensleep (Penn.) | 1964 | 6,000 | 37 | 1.15 | 27 | 12 | 22 | 17,050 | 580 | 9,890 | 10 | 2 | 1,000 | 200 | 1,200 | 1,126 | 74 | 28,037 | 77 | 2,070 | 77 | 38 |
| 39 | Fairview | Richland | Winnipegosis (Dev.) | 1967 | 11,500 | 43 | 1.10 | 27 | 7 | 30 | 9,330 | 160 | 1,490 | 18 | -- | 270 | -- | 270 | 230 | 40 | 13,701 | 38 | 1,690 | 63 | 39 |
| 40 | Fairview | Richland | Red River (Ord.) | 1965 | 12,700 | 47 | 1.70 | 35 | 11 | 28 | 12,650 | 1,920 | 24,290 | 17 | 8 | 4,200 | 2,000 | 6,200 | 3,889 | 2,311 | 362,010 | 992 | 3,230 | 92 | 40 |
| 41 | Fertile Prairie | Fallon | Red River (Ord.) | 1952 | 9,300 | 29 | 1.20 | 6 | 14 | 27 | 3,960 | 400 | 1,580 | 32 | -- | 500 | -- | 500 | 366 | 134 | 15,672 | 43 | 1,250 | 208 | 41 |
| 42 | Flat Coulee | Liberty | Swift (U. Jur.) | 1933 | 2,900 | 37 | 1.10 | 18 | 21 | 35 | 17,330 | 1,280 | 22,180 | 13 | 11 | 2,800 | 2,400 | 5,200 | 2,455 | 2,745 | 106,723 | 292 | 4,060 | 226 | 42 |
| 43 | Flat Lake | Sheridan | Ratcliffe (Miss.) | 1964 | 6,500 | 33 | 1.26 | 14 | 15 | 45 | 7,110 | 9,600 | 68,260 | 14 | 5 | 9,300 | 3,500 | 12,800 | 7,810 | 4,990 | 638,274 | 1,748 | 1,330 | 95 | 43 |
| 44 | Flat Lake, South | Sheridan | Ratcliffe (Miss.) | 1966 | 6,500 | 32 | 1.26 | 9 | 12 | 45 | 3,660 | 1,120 | 4,100 | 32 | -- | 1,300 | -- | 1,300 | 700 | 600 | 96,261 | 264 | 1,160 | 129 | 44 |
| 45 | Fort Gilbert | Sheridan | Red River (Ord.) | 1970 | 12,500 | 48 | 1.89 | 42 | 12 | 20 | 16,550 | 640 | 10,590 | 12 | -- | 1,300 | -- | 1,300 | 735 | 565 | 183,224 | 502 | 2,030 | 48 | 45 |
| 46 | Frannie | Carbon | Tensleep (Penn.) | 1928 | 2,700 | 27 | 1.02 | 29 | 19 | 16 | 35,200 | 80 | 2,820 | 27 | -- | 750 | -- | 750 | 670 | 80 | 11,558 | 32 | 9,380 | 323 | 46 |
| 47 | Fred & George Creek | Toole | Sunburst (L. Cret.) | 1963 | 2,600 | 39 | 1.20 | 31 | 27 | 30 | 37,880 | 880 | 33,330 | 23 | 20 | 7,700 | 6,700 | 14,400 | 7,593 | 6,807 | 397,085 | 1,088 | 16,360 | 528 | 47 |
| 48 | Fred & George Creek | Toole | Swift (U. Jur.) | 1963 | 2,700 | 39 | 1.10 | 8 | 14 | 30 | 5,530 | 840 | 4,650 | 26 | -- | 1,200 | -- | 1,200 | 980 | 220 | 25,580 | 70 | 1,430 | 179 | 48 |
| 49 | Froid, South | Roosevelt | Red River (Ord.) | 1970 | 12,100 | 48 | 1.55 | 12 | 17 | 25 | 7,660 | 160 | 1,230 | 16 | -- | 200 | -- | 200 | 130 | 70 | 10,377 | 28 | 1,250 | 104 | 49 |
| 50 | Gas City | Dawson | Red River (Ord.) | 1955 | 8,900 | 38 | 1.28 | 25 | 12 | 35 | 11,820 | 2,800 | 33,100 | 26 | 5 | 8,600 | 1,600 | 10,200 | 7,883 | 2,317 | 268,018 | 734 | 3,640 | 146 | 50 |
| 51 | Girard | Richland | Red River (Ord.) | 1969 | 11,900 | 46 | 1.15 | 18 | 15 | 40 | 10,930 | 320 | 3,500 | 11 | -- | 400 | -- | 400 | 281 | 119 | 21,789 | 60 | 1,250 | 69 | 51 |
| 52 | Glendive | Dawson | Red River (Ord.) | 1952 | 8,900 | 38 | 1.25 | 147 | 8 | 35 | 47,440 | 1,280 | 60,720 | 21 | -- | 12,500 | -- | 12,500 | 9,717 | 2,783 | 283,867 | 778 | 9,770 | 66 | 52 |
| 53 | Goose Lake | Sheridan | Ratcliffe (Miss.) | 1962 | 7,000 | 34 | 1.20 | 40 | 16 | 55 | 18,620 | 6,240 | 116,190 | 7 | 1 | 7,850 | 1,150 | 9,000 | 5,584 | 3,416 | 314,700 | 862 | 1,440 | 36 | 53 |
| 54 | Graben Coulee | Glacier | Sunburst, Cut Bank, Madison | 1961 | 2,900 | 34 | 1.10 | 15 | 12 | 30 | 8,890 | 800 | 7,110 | 23 | -- | 1,600 | -- | 1,600 | 942 | 658 | 80,188 | 220 | 2,000 | 133 | 54 |
| 55 | Hay Creek | Richland | Red River (Ord.) | 1969 | 12,600 | 46 | 1.90 | 53 | 12 | 25 | 19,480 | 640 | 12,470 | 12 | -- | 1,500 | -- | 1,500 | 707 | 793 | 74,064 | 203 | 2,340 | 44 | 55 |
| 56 | Hay Creek | Richland | Mission Canyon (Miss.) | 1969 | 9,600 | 39 | 1.15 | 40 | 5 | 30 | 9,440 | 160 | 1,510 | 13 | -- | 200 | -- | 200 | 109 | 91 | 13,167 | 36 | 1,250 | 31 | 56 |
| 57 | Hiawatha | Musselshell | Tyler (L. Penn.) | 1967 | 5,000 | 33 | 1.15 | 34 | 12 | 30 | 19,270 | 360 | 6,940 | 22 | -- | 1,500 | -- | 1,500 | 1,017 | 483 | 64,154 | 176 | 4,170 | 123 | 57 |
| 58 | Ivanhoe | Musselshell | Tyler (L. Penn.) | 1956 | 4,100 | 33 | 1.08 | 29 | 15 | 20 | 25,000 | 600 | 15,000 | 27 | -- | 4,000 | -- | 4,000 | 3,726 | 274 | 38,171 | 105 | 6,670 | 230 | 58 |
| 59 | Jim Coulee | Musselshell | Tylor (L. Penn.) | 1971 | 3,700 | 33 | 1.10 | 37 | 15 | 33 | 26,230 | 760 | 19,930 | 18 | 9 | 3,600 | 1,800 | 5,400 | 1,087 | 4,313 | 476,508 | 1,306 | 7,110 | 192 | 59 |
| 60 | Keg Coulee | Musselshell | Tyler (L. Penn.) | 1960 | 4,600 | 33 | 1.15 | 19 | 14 | 32 | 12,200 | 1,800 | 21,960 | 20 | 12 | 4,400 | 2,700 | 7,100 | 4,139 | 2,961 | 262,297 | 719 | 3,940 | 208 | 60 |
| 61 | Keg Coulee, North | Musselshell | Tyler (L. Penn.) | 1964 | 4,600 | 33 | 1.15 | 14 | 12 | 32 | 7,710 | 120 | 930 | 32 | -- | 300 | -- | 300 | 214 | 86 | 35,622 | 98 | 2,500 | 179 | 61 |
| 62 | Kelley | Musselshell | Tyler (L. Penn.) | 1966 | 4,400 | 33 | 1.15 | 50 | 13 | 30 | 30,690 | 200 | 6,140 | 8 | 7 | 500 | 400 | 900 | 684 | 216 | 62,524 | 171 | 4,500 | 90 | 62 |
| 63 | Kevin-Sunburst | Toole | Madison-Sunburst (Miss.-L.Cret.) | 1922 | 1,500 | 32 | 1.08 | 7 | 20 | 35 | 6,540 | 40,200 | 262,910 | 27 | 4 | 70,000 | 10,000 | 80,000 | 70,947 | 9,053 | 268,239 | 735 | 1,990 | 284 | 63 |
| 64 | Laird Creek | Liberty | Swift (U. Jur.) | 1968 | 2,800 | 39 | 1.10 | 14 | 16 | 25 | 11,850 | 480 | 5,690 | 12 | -- | 700 | -- | 700 | 370 | 330 | 31,434 | 86 | 1,460 | 104 | 64 |
| 65 | Leary | Powder River | Muddy (Cret.) | 1969 | 5,800 | 41 | 1.15 | 7 | 17 | 33 | 5,380 | 240 | 1,290 | 23 | -- | 300 | -- | 300 | 149 | 151 | 29,032 | 80 | 1,250 | 178 | 65 |
| 66 | Little Beaver | Fallon | Red River (Ord.) | 1952 | 8,300 | 29 | 1.40 | 37 | 12 | 35 | 15,990 | 2,390 | 38,220 | 17 | 10 | 6,500 | 4,000 | 10,500 | 6,247 | 4,253 | 466,652 | 1,278 | 4,390 | 119 | 66 |
| 67 | Little Beaver, East | Fallon | Red River (Ord.) | 1954 | 8,300 | 30 | 1.50 | 24 | 13 | 35 | 10,490 | 1,600 | 16,780 | 23 | 12 | 3,900 | 2,000 | 5,900 | 3,617 | 2,283 | 143,961 | 394 | 3,690 | 154 | 67 |
| 68 | Little Wall Creek | Musselshell | Tyler (L. Penn.) | 1970 | 3,700 | 33 | 1.10 | 40 | 15 | 33 | 28,350 | 160 | 4,540 | 17 | -- | 800 | -- | 800 | 130 | 670 | 39,646 | 109 | 5,000 | 125 | 68 |
| 69 | Lonetree Creek | Richland | Red River (Ord.) | 1970 | 12,500 | 47 | 1.86 | 19 | 11 | 30 | 6,100 | 2,240 | 13,660 | 22 | -- | 3,000 | -- | 3,000 | 1,210 | 1,790 | 286,746 | 786 | 1,340 | 71 | 69 |
| 70 | Lookout Butte | Fallon | Red River (Ord.) | 1961 | 8,900 | 33 | 1.15 | 15 | 15 | 25 | 11,380 | 6,100 | 69,420 | 19 | 12 | 13,000 | 8,000 | 21,000 | 13,849 | 7,151 | 639,023 | 1,751 | 3,440 | 229 | 70 |
| 71 | Lookout Butte | Fallon | Mission Canyon-Lodgepole (Miss.) | 1966 | 8,000 | 26 | 1.13 | 26 | 10 | 35 | 11,600 | 1,920 | 22,270 | 7 | -- | 1,600 | -- | 1,600 | 1,352 | 248 | 41,400 | 113 | 830 | 32 | 71 |
| 72 | Melstone | Musselshell | Tyler (L. Penn.) | 1948 | 4,300 | 34 | 1.09 | 25 | 15 | 30 | 18,680 | 360 | 6,720 | 27 | -- | 1,800 | -- | 1,800 | 1,637 | 163 | 22,872 | 63 | 5,000 | 200 | 72 |
| 73 | Monarch | Fallon | Siluro-Ordovician | 1958 | 8,400 | 32 | 1.10 | 31 | 7 | 35 | 9,950 | 2,240 | 22,290 | 22 | 2 | 4,900 | 500 | 5,400 | 3,269 | 2,131 | 162,028 | 435 | 2,410 | 78 | 73 |
| 74 | Nohly | Richland | Red River (Ord.) | 1972 | 12,900 | 46 | 1.43 | 27 | 10 | 40 | 8,790 | 320 | 2,810 | 21 | -- | 600 | -- | 600 | 271 | 329 | 116,612 | 319 | 1,880 | 70 | 74 |
| 75 | Otis Creek | Richland | Red River (Ord.) | 1970 | 12,700 | 48 | 1.78 | 23 | 12 | 35 | 7,820 | 640 | 5,000 | 10 | -- | 500 | -- | 500 | 240 | 260 | 77,505 | 103 | 780 | 34 | 75 |
| 76 | Outlook | Sheridan | Siluro-Devonian | [illegible] | 9,000 | [illegible] | 1.12 | 20 | [illegible] | 30 | [illegible] | 1,600 | 12,420 | 43 | -- | 5,400 | -- | 5,400 | 5,010 | 390 | [illegible] | [illegible] | [illegible] | [illegible] | 76 |
| 77 | Outlook | Sheridan | Duperow (Dev.) | 1964 | 8,200 | 39 | 1.50 | 15 | 10 | 25 | 5,820 | 640 | 3,720 | 27 | -- | 1,000 | -- | 1,000 | 844 | 156 | 38,675 | 106 | 1,560 | 104 | 77 |
| 78 | Outlook | Sheridan | Winnipegosis (Dev.) | 1971 | 9,000 | 39 | 1.12 | 18 | 8 | 30 | 6,980 | 480 | 3,350 | 12 | -- | 400 | -- | 400 | 219 | 181 | 60,941 | 167 | 830 | 46 | 78 |
| 79 | Outlook, South | Sheridan | Winnipegosis (Dev.) | 1957 | 9,100 | 39 | 1.12 | 18 | 8 | 30 | 6,980 | 240 | 1,680 | 19 | -- | 320 | -- | 320 | 302 | 18 | 4,432 | 12 | 1,330 | 74 | 79 |
| 80 | Outlook, West | Sheridan | Winnipegosis (Dev.) | 1958 | 9,100 | 39 | 1.12 | 16 | 8 | 30 | 6,210 | 320 | 1,990 | 30 | -- | 600 | -- | 600 | 476 | 124 | 28,948 | 79 | 1,880 | 63 | 80 |
| 81 | Pennel | Fallon | Siluro-Ordovician | 1955 | 8,800 | 33 | 1.14 | 25 | 11 | 35 | 12,160 | 22,380 | 272,140 | 11 | 8 | 31,000 | 21,800 | 54,200 | 27,356 | 26,844 | 2,256,977 | 6,293 | 2,360 | 94 | 81 |
| 82 | Pennel | Fallon | Mission Canyon (Miss.) | 1957 | 7,000 | 31 | 1.10 | 38 | 3 | 30 | 5,630 | 720 | 4,050 | 17 | -- | 700 | -- |  |  |  |  |  | 970 | 26 | 82 |
| 83 | Pennel | Fallon | Lodgepole (Miss.) | 1960 | 7,500 | 36 | 1.13 | 30 | 8 | 35 | 10,710 | 320 | 3,430 | 20 | -- | 700 | -- |  |  |  |  |  | 2,190 | 73 | 83 |
| 84 | Pine | Fallon, Wibaux, Prairie, Dawson | Siluro-Ordovician | 1952 | 8,400 | 34 | 1.17 | 32 | 12 | 30 | 17,820 | 13,320 | 237,360 | 24 | 18 | 57,000 | 43,000 | 100,000 | 75,680 | 24,320 | 2,884,405 | 7,902 | 7,510 | 235 | 84 |
| 85 | Pondera | Pondera, Teton | Madison (Miss.) | 1927 | 2,100 | 34 | 1.20 | 15 | 16 | 31 | 10,710 | 5,560 | 59,550 | 39 | -- | 23,500 | -- | 23,500 | 19,732 | 3,768 | 280,870 | 770 | 4,230 | 282 | 85 |
| 86 | Poplar | Roosevelt | Madison (Miss.) | 1952 | 5,500 | 40 | 1.10 | 25 | 11 | 30 | 13,580 | 18,070 | 245,390 | 19 | -- | 46,000 | -- | 46,000 | 40,369 | 5,631 | 484,745 | 1,331 | 2,550 | 102 | 86 |
| 87 | Poplar | Roosevelt | Heath (Penn.) | 1969 | 4,900 | 38 | 1.10 | 8 | 11 | 50 | 3,100 | 480 | 1,490 | 20 | -- | 300 | -- | 300 | 191 | 109 | 16,740 | 46 | 630 | 79 | 87 |
| 88 | Poplar | Roosevelt | Nisku (Dev.) | 1969 | 7,300 | 42 | 1.40 | 12 | 8 | 50 | 2,660 | 320 | 850 | 24 | -- | 200 | -- | 200 | 164 | 36 | 11,161 | 31 | 630 | 53 | 88 |
| 89 | Poplar, Northwest | Roosevelt | Madison (Miss.) | 1952 | 6,300 | 40 | 1.10 | 16 | 10 | 45 | 6,210 | 400 | 2,480 | 22 | -- | 550 | -- | 550 | 482 | 68 | 13,885 | 38 | 1,380 | 86 | 89 |
| 90 | Putnam | Richland | Siluro-Ordovician | 1969 | 11,900 | 41 | 1.75 | 16 | 9 | 30 | 4,470 | 320 | 1,430 | 39 | -- | 700 | -- | 700 | 398 | 302 | 97,957 | 268 | 2,190 | 137 | 90 |
| 91 | Rabbit Hills | Blaine | Sawtooth (Jur.) | 1972 | 4,000 | 21 | 1.15 | 12 | 18 | 16 | 12,240 | 640 | 7,830 | 6 | -- | 500 | -- | 500 | 67 | 433 | 60,098 | 165 | 780 | 65 | 91 |
| 92 | Ragged Point | Musselshell | Tyler (L. Penn.) | 1956 | 3,600 | 32 | 1.11 | 13 | 14 | 32 | 8,650 | 1,040 | 9,000 | 20 | 13 | 1,850 | 1,150 | 3,000 | 1,853 | 1,147 | 154,670 | 424 | 2,880 | 222 | 92 |
| 93 | Raymond | Sheridan | Nisku (Dev.) | 1972 | 7,900 | 50 | 1.40 | 22 | 8 | 50 | 4,880 | 320 | 1,560 | 38 | -- | 600 | -- | 600 | 119 | 481 | 82,284 | 225 | 1,880 | 85 | 93 |
| 94 | Raymond | Sheridan | Duperow (Dev.) | 1972 | 8,400 | 46 | 1.50 | 19 | 13 | 29 | 9,070 | 160 | 1,450 | 48 | -- | 700 | -- | 700 | 125 | 575 | 80,889 | 222 | 4,380 | 231 | 94 |
| 95 | Raymond | Sheridan | Winnipegosis (Dev.) | 1972 | 9,300 | 42 | 1.17 | 40 | 5 | 10 | 11,940 | 480 | 5,730 | 21 | -- | 1,200 | -- | 1,200 | 314 | 886 | 188,768 | 517 | 2,500 | 63 | 95 |
| 96 | Raymond | Sheridan | Red River (Ord.) | 1972 | 10,000 | 39 | 1.42 | 33 | 12 | 27 | 15,790 | 160 | 2,530 | 20 | -- | 500 | -- | 500 | 114 | 386 | 41,623 | 114 | 3,130 | 95 | 96 |
| 97 | Reagan | Glacier | Madison (Miss.) | 1947 | 3,700 | 38 | 1.10 | 11 | 12 | 30 | 6,520 | 2,520 | 16,430 | 33 | 10 | 5,400 | 1,600 | 7,000 | 5,495 | 1,505 | 186,958 | 512 | 2,780 | 253 | 97 |
| 98 | Red Creek | Glacier | Cut Bank (L. Cret.) | 1958 | 2,600 | 31 | 1.08 | 20 | 19 | 30 | 19,110 | 770 | 14,710 | 15 | 3 | 2,250 | 450 | 2,700 | 1,918 | 782 | 64,790 | 178 | 3,510 | 176 | 98 |
| 99 | Red Creek | Glacier | Madison (Miss.) | 1958 | 2,800 | 28 | 1.10 | 32 | 13 | 30 | 20,540 | 640 | 13,150 | 27 | -- | 3,500 | -- | 3,500 | 2,675 | 825 | 111,252 | 305 | 5,470 | 171 | 99 |
| 100 | Redstone | Sheridan | Winnipegosis (Dev.) | 1958 | 9,400 | 42 | 1.10 | 34 | 8 | 30 | 13,430 | 160 | 2,150 | 21 | -- | 450 | -- | 450 | 368 | 82 | 13,191 | 36 | 2,810 | 83 | 100 |
| 101 | Repeat | Carter | Red River (Ord.) | 1956 | 8,600 | 23 | 1.02 | 25 | 10 | 30 | 13,310 | 160 | 2,130 | 21 | -- | 450 | -- | 450 | 393 | 57 | 10,290 | 28 | 2,810 | 112 | 101 |
| 102 | Reserve | Sheridan | Red River (Ord.) | 1966 | 11,100 | 39 | 1.30 | 18 | 6 | 30 | 4,510 | 960 | 4,330 | 16 | -- | 700 | -- | 700 | 539 | 161 | 58,684 | 161 | 730 | 41 | 102 |
| 103 | Richey, Southwest | McCone | Siluro-Ordovician | 1952 | 9,200 | 48 | 1.37 | 27 | 9 | 30 | 9,630 | 1,160 | 11,170 | 15 | 1 | 1,700 | 150 | 1,850 | 1,797 | 53 | 15,091 | 41 | 1,590 | 59 | 103 |
| 104 | Rush Mountain | Sheridan | Red River (Ord.) | 1968 | 12,000 | 39 | 1.62 | 14 | 10 | 33 | 4,490 | 320 | 1,440 | 31 | -- | 450 | -- | 450 | 229 | 221 | 28,514 | 78 | 1,410 | 101 | 104 |
| 105 | Salt Lake | Sheridan | Nisku (Dev.) | 1970 | 7,900 | 43 | 1.50 | 23 | 11 | 35 | 8,510 | 480 | 4,080 | 10 | -- | 400 | -- | 400 | 137 | 263 | 41,302 | 113 | 830 | 36 | 105 |
| 106 | Sand Creek | Dawson | Red River (Ord.) | 1959 | 9,000 | 39 | 1.30 | 25 | 10 | 40 | 8,950 | 880 | 7,880 | 28 | -- | 2,200 | -- | 2,200 | 2,039 | 161 | 21,236 | 58 | 2,500 | 100 | 106 |
| 107 | Second Creek | Richland | Red River (Ord.) | 1972 | 12,700 | 46 | 1.50 | 30 | 7 | 40 | 6,520 | 320 | 2,090 | 19 | -- | 400 | -- | 400 | 120 | 280 | 116,085 | 318 | 1,250 | 42 | 107 |
| 108 | Sioux Pass | Richland | Siluro-Ordovician | 1973 | 11,900 | 47 | 1.70 | 40 | 8 | 35 | 9,490 | 320 | 3,040 | 33 | -- | 1,000 | -- | 1,000 | 186 | 814 | 185,545 | 508 | 3,130 | 78 | 108 |
| 109 | Sioux Pass | Richland | Red River (Ord.) | 1973 | 12,700 | 47 | 1.70 | 40 | 10 | 35 | 11,870 | 320 | 3,800 | 21 | -- | 800 | -- | 800 | 39 | 761 | 38,713 | 106 | 2,500 | 63 | 109 |
| 110 | Soap Creek | Big Horn | Tensleep-Amsden-Madison (Penn.-Miss.) | 1952 | 1,900 | 20 | 1.05 | 20 | 15 | 35 | 14,410 | 600 | 8,650 | 24 | -- | 2,100 | -- | 2,100 | 1,749 | 351 | 49,250 | 135 | 3,500 | 175 | 110 |
| 111 | Spring Lake | Richland | Red River (Ord.) | 1963 | 11,700 | 51 | 2.00 | 9 | 12 | 30 | 2,930 | 900 | 2,640 | 27 | -- | 700 | -- | 700 | 580 | 120 | 18,000 | 49 | 780 | 87 | 111 |
| 112 | Stensvad | Musselshell, Rosebud | Tyler (Penn.) | 1958 | 5,500 | 33 | 1.17 | 25 | 14 | 20 | 18,570 | 1,500 | 27,860 | 27 | 18 | 7,500 | 5,000 | 12,500 | 9,578 | 2,922 | 543,468 | 1,489 | 8,330 | 333 | 112 |
| 113 | Sumatra | Rosebud | Tyler (Penn.) | 1949 | 4,500 | 32 | 1.16 | 30 | 19 | 35 | 24,780 | 4,360 | 108,040 | 25 | 12 | 27,500 | 13,500 | 41,000 | 26,811 | 14,189 | 1,208,520 | 3,311 | 9,400 | 313 | 113 |
| 114 | Tule Creek | Roosevelt | Nisku (Dev.) | 1960 | 7,500 | 46 | 1.41 | 25 | 15 | 30 | 14,440 | 1,160 | 16,750 | 54 | -- | 9,000 | -- | 9,000 | 6,341 | 2,659 | 229,003 | 627 | 7,760 | 310 | 114 |
| 115 | Tule Creek, East | Roosevelt | Nisku (Dev.) | 1964 | 7,500 | 43 | 1.91 | 30 | 18 | 30 | 15,350 | 400 | 6,140 | 36 | -- | 2,200 | -- | 2,200 | 1,834 | 366 | 70,976 | 194 | 5,500 | 183 | 115 |
| 116 | Tule Creek, South | Roosevelt | Nisku (Dev.) | 1964 | 7,600 | 43 | 1.40 | 8 | 12 | 30 | 3,720 | 400 | 1,490 | 47 | -- | 700 | -- | 700 | 577 | 123 | 29,665 | 81 | 1,750 | 219 | 116 |
| 117 | Vida | McCone, Dawson | Interlake (Sil.) | 1963 | 9,300 | 51 | 1.40 | 33 | 2 | 56 | 1,610 | 320 | 520 | 58 | -- | 300 | -- | 300 | 244 | 56 | 9,722 | 27 | 940 | 28 | 117 |
| 118 | Volt | Roosevelt | Nisku (Dev.) | 1964 | 7,300 | 47 | 1.40 | 14 | 20 | 30 | 10,860 | 800 | 8,690 | 31 | -- | 2,700 | -- | 2,700 | 1,625 | 1,075 | 120,894 | 331 | 3,380 | 241 | 118 |
| 119 | Weed Creek | Yellowstone | Amsden (L. Penn.) | 1966 | 6,200 | 35 | 1.07 | 12 | 8 | 23 | 5,360 | 640 | 3,430 | 17 | -- | 600 | -- | 600 | 539 | 61 | 5,513 | 15 | 940 | 118 | 119 |
| 120 | Weldon | McCone | Kibbey (U. Miss.) | 1964 | 5,900 | 39 | 1.01 | 14 | 16 | 35 | 11,180 | 1,560 | 17,440 | 40 | -- | 7,000 | -- | 7,000 | 6,781 | 219 | 71,063 | 195 | 4,490 | 321 | 120 |
| 121 | West Butte | Toole | Sunburst (Cret.) | 1968 | 2,300 | 40 | 1.10 | 10 | 24 | 23 | 13,030 | 40 | 520 | 38 | -- | 200 | -- | 200 | 163 | 37 | 14,484 | 40 | 5,000 | 500 | 121 |
| 122 | Whitlash | Liberty | Swift-Sunburst (Jur.-Cret.) | 1927 | 2,600 | 38 | 1.13 | 15 | 16 | 20 | 13,180 | 1,920 | 25,310 | 18 | -- | 4,500 | -- | 4,500 | 3,322 | 1,178 | 141,689 | 388 | 2,340 | 156 | 122 |
| 123 | Willow Creek, North | Musselshell | Tyler (Penn.) | 1970 | 4,000 | 32 | 1.20 | 12 | 13 | 54 | 4,640 | 160 | 740 | 34 | 14 | 250 | 100 | 350 | 195 | 155 | 34,398 | 94 | 2,190 | 183 | 123 |
| 124 | Wills Creek, South | Fallon | Interlake (Sil.) | 1964 | 8,700 | 33 | 1.20 | 12 | 18 | 35 | 9,080 | 320 | 2,910 | 31 | -- | 900 | -- | 900 | 646 | 254 | 28,811 | 79 | 2,810 | 255 | 124 |
| 125 | Winnett Junction | Musselshell | Tyler (Penn.) | 1973 | 2,500 | 28 | 1.10 | 12 | 18 | 30 | 10,660 | 160 | 1,710 | 18 | -- | 300 | -- | 300 | 32 | 268 | 32,007 | 88 | 1,880 | 157 | 125 |
| 126 | Wolf Springs | Yellowstone | Amsden (L. Penn.) | 1955 | 6,200 | 30 | 1.07 | 11 | 6 | 23 | 3,680 | 3,840 | 14,130 | 33 | -- | 4,600 | -- | 4,600 | 4,448 | 152 | 18,960 | 52 | 1,200 | 109 | 126 |
| 127 | Woodrow | Dawson | Siluro-Ordovician | 1952 | 9,600 | 42 | 1.30 | 25 | 14 | 35 | 13,580 | 480 | 6,520 | 15 | -- | 1,000 | -- | 1,000 | 895 | 105 | 27,630 | 76 | 2,080 | 83 | 127 |
| 128 | Wright Creek | Powder River | Muddy (Cret.) | 1969 | 4,800 | 35 | 1.10 | 5 | 26 | 48 | 4,770 | 480 | 2,290 | 9 | -- | 200 | -- | 200 | 152 | 48 | 15,244 | 42 | 420 | 84 | 128 |
| 129 | Miscellaneous |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 1,032 | 142,573 | 391 |  |  | 129 |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 334,000 | 34,620,182 | 94,850 |  |  |  |

# BARRELS OF CRUDE OIL REFINED IN MONTANA
# CALENDAR YEAR 1973

| FIELDS | Big West Oil Co. | Continental Oil Co. | Diamond Asphalt | Exxon Corp. | Farmers Union | Jet Fuel Refinery | Phillips Petr. Co. | Tesoro Petr. Corp. | Westco Ref. Co. | Total By Fields |
|---|---|---|---|---|---|---|---|---|---|---|
| Big Wall |  | 61,982 |  |  |  |  |  |  |  | 61,982 |
| Bowes |  |  | 3,069 |  |  |  |  |  |  | 3,069 |
| Cat Creek |  | 30,548 |  |  | 129,697 | 4,605 |  |  |  | 164,850 |
| Cut Bank | 802,879 |  |  |  |  |  | 1,841,799 |  | 1,426,476 | 4,071,154 |
| Delphia |  |  |  |  |  | 1,320 |  |  |  | 1,320 |
| Elk Basin |  | 510,911 |  | 455,697 | 451,614 |  |  |  |  | 1,418,222 |
| Flat Coulee |  |  |  |  |  |  |  |  | 94,882 | 94,882 |
| Fred & George Creek | 422,355 |  |  |  |  |  |  |  |  | 422,355 |
| Gage |  |  |  |  |  | 402 |  |  |  | 402 |
| Hiawatha |  |  |  |  |  | 25 |  |  |  | 25 |
| Hibbard |  |  |  |  |  | 630 |  |  |  | 630 |
| Kelley |  |  |  | 62,763 |  |  |  |  |  | 62,763 |
| Ivanhoe |  | 40,068 |  |  |  |  |  |  |  | 40,068 |
| Keg Coulee |  | 163,040 |  | 64,948 | 68,829 |  |  |  |  | 296,817 |
| Kevin Sunburst | 244,171 |  |  |  |  |  |  |  |  | 244,171 |
| Lodge Grass |  | 7,156 |  |  |  |  |  |  |  | 7,156 |
| Mason Lake |  | 4,861 |  |  |  |  |  |  |  | 4,861 |
| Melstone |  |  |  |  | 21,363 |  |  |  |  | 21,363 |
| Pondera |  |  |  |  |  |  | 275,792 |  |  | 275,792 |
| Ragged Point |  |  |  |  | 155,599 |  |  |  |  | 155,599 |
| Snyder |  | 5,409 |  |  |  |  |  |  |  | 5,409 |
| Sumatra & Stensvad |  | 221,805 |  | 480,226 | 844,467 |  |  |  |  | 1,546,498 |
| Tule Creek |  |  |  |  |  |  |  | 668,318 |  | 668,318 |
| Weed Creek |  |  |  | 5,751 |  |  |  |  |  | 5,751 |
| Whitlash |  |  |  |  |  |  | 101,928 |  |  | 101,928 |
| Wolf Springs |  |  |  | 20,062 |  |  |  |  |  | 20,062 |
| Total Montana Oil | 1,469,405 | 1,045,780 | 3,069 | 1,089,447 | 1,671,569 | 6,982 | 2,219,519 | 668,318 | 1,521,358 | 9,695,447 |
| Canadian Oil Imported |  | 5,001,117 |  | 5,568,127 | 5,298,748 |  |  |  |  | 15,867,992 |
| Wyoming Oil Imported |  | 10,441,424 |  | 10,010,707 | 4,951,636 |  |  |  |  | 25,403,767 |
| Total Montana, Canadian and Wyoming Oil | 1,469,405 | 16,488,321 | 3,069 | 16,668,281 | 11,921,953 | 6,982 | 2,219,519 | 668,318 | 1,521,538 | 50,967,206 |

AVERAGE BARRELS PER DAY

|  | Montana | Canada | Wyoming | Total |
|---|---|---|---|---|
| Year 1972 | 24,791 | 37,405 | 70,584 | 132,780 |
| Year 1973 | 26,563 | 43,474 | 69,599 | 139,636 |

PERCENTAGE OF CRUDE OIL REFINED

|  | Montana | Canada | Wyoming |
|---|---|---|---|
| Year 1972 | 18.67% | 28.17% | 53.16% |
| Year 1973 | 19.02% | 31.31% | 49.85% |

# BOARD OF OIL AND GAS CONSERVATION OF THE STATE OF MONTANA

## STATEMENT OF CRUDE OIL PRODUCTION AND VALUATION—ALL MONTANA FIELDS
## YEAR 1973 AND ACCUMULATED TOTALS FROM DISCOVERY DATE

| | | PRODUCTION YEAR, 1973 | | | Cumulative to Dec. 31, 1973 | |
|---|---|---|---|---|---|---|
| FIELD | COUNTY | BARRELS | VALUE | AVERAGE PRICE | BARRELS | VALUE |
| Ash Creek | Big Horn | 10,797 | 34,658 | 3.21 | 721,106 | 1,641,760 |
| Bainville | Richland | 25,394 | 81,515 | 3.21 | 181,224 | 528,703 |
| Bannatyne | Teton | 5,367 | 15,510 | 2.89 | 208,711 | 362,968 |
| Bear's Dean | Liberty | 11,197 | 31,799 | 2.84 | 385,211 | 893,308 |
| Bell Creek | Powder River | 8,137,047 | 29,374,739 | 3.61 | 59,529,635 | 175,804,515 |
| Benrud | Roosevelt | 9,047 | 29,764 | 3.29 | 200,448 | 488,202 |
| Benrud East | Roosevelt | 157,129 | 549,951 | 3.50 | 1,638,214 | 4,565,829 |
| Benrud Northeast | Roosevelt | 20,013 | 67,844 | 3.39 | 809,673 | 2,134,397 |
| Berthelote | Toole | 1,334 | 4,002 | 3.00 | 45,672 | 106,314 |
| Big Wall | Musselshell | 62,266 | 190,533 | 3.06 | 6,440,173 | 13,948,060 |
| Blackfoot | Glacier | 16,217 | 46,218 | 2.85 | 1,013,038 | 2,251,449 |
| Border | Toole | 7,604 | 20,682 | 2.72 | 1,242,137 | 1,779,449 |
| Bowes | Blaine | 85,798 | 165,590 | 1.93 | 7,727,922 | 10,490,421 |
| Bradley | Glacier | 6,477 | 18,588 | 2.87 | 174,726 | 472,483 |
| Brady-Midway | Pondera | 2,382 | 7,717 | 3.24 | 51,964 | 126,214 |
| Brorson-Madison | Richland | 37,345 | 128,093 | 3.43 | 259,547 | 783,324 |
| Brorson-Red River | Richland | 105,946 | 372,929 | 3.52 | 1,527,466 | 4,547,004 |
| Brorson-Red River South | Richland | 87,798 | 311,682 | 3.55 | 682,893 | 2,133,067 |
| Brush Lake | Sheridan | 169,615 | 547,856 | 3.23 | 1,148,418 | 3,438,206 |
| Burns Creek | Dawson | 42,170 | 140,426 | 3.33 | 96,584 | 312,374 |
| Cabin Creek | Fallon | 2,738,767 | 9,065,318 | 3.31 | 65,247,951 | 168,903,361 |
| Canal | Richland | 71,828 | 257,862 | 3.59 | 321,632 | 1,057,860 |
| Cat Creek | Petroleum, Garfield | 161,866 | 551,963 | 3.41 | 22,169,467 | 42,518,668 |
| Chelsea Creek | Roosevelt | 5,428 | 18,618 | 3.43 | 9,309 | 30,649 |
| Clark's Fork | Carbon | 866 | 2,961 | 3.42 | 79,621 | 195,174 |
| Clark's Fork South | Carbon | 2,450 | 8,477 | 3.46 | 44,617 | 137,826 |
| Conrad South | Pondera | 4,566 | 15,524 | 3.40 | 118,475 | 329,211 |
| Cow Creek | McCone | 7,842 | 26,427 | 3.37 | 77,178 | 236,649 |
| Cow Creek East | McCone | 212,986 | 719,892 | 3.38 | 598,881 | 1,923,884 |
| Culbertson | Roosevelt | 9,105 | 29,682 | 3.26 | 81,720 | 241,398 |
| Cupton | Fallon | 94,222 | 313,759 | 3.33 | 592,220 | 1,671,548 |
| Cut Bank | Glacier, Toole | 4,005,604 | 12,577,596 | 3.14 | 137,892,649 | 296,382,813 |
| Deer Creek | Dawson | 13,561 | 45,158 | 3.33 | 2,216,449 | 5,301,565 |
| Delphia | Musselshell | 4,041 | 13,012 | 3.22 | 285,439 | 666,187 |
| Devil's Basin | Musselshell | 2,614 | 6,273 | 2.40 | 52,051 | 88,495 |
| Dwyer | Sheridan | 151,122 | 453,366 | 3.00 | 5,159,833 | 12,164,898 |
| Elk Basin | Carbon | 1,386,469 | 4,436,700 | 3.20 | 69,093,703 | 166,559,327 |
| Elk Basin Northwest | Carbon | 36,031 | 126,829 | 3.52 | 1,030,084 | 2,846,687 |
| Fairview | Richland | 375,711 | 1,314,988 | 3.50 | 4,118,084 | 12,109,241 |
| Fertile Prairie | Fallon | 15,672 | 46,545 | 2.97 | 365,803 | 790,532 |
| Flat Coulee | Liberty | 106,723 | 338,311 | 3.17 | 2,455,014 | 5,818,302 |
| Flat Lake | Sheridan | 638,274 | 1,799,932 | 2.82 | 7,809,733 | 18,655,064 |
| Flat Lake South | Sheridan | 96,261 | 274,343 | 2.85 | 479,423 | 1,247,601 |
| Four Buttes | Daniels | 6,001 | 19,263 | 3.21 | 13,892 | 42,226 |
| Ft. Gilbert | Richland | 183,224 | 630,290 | 3.44 | 735,066 | 2,394,922 |
| Frannie | Carbon | 11,558 | 36,523 | 3.16 | 671,014 | 1,388,388 |
| Fred & George Creek | Toole | 422,665 | 1,373,661 | 3.25 | 8,546,816 | 21,732,697 |
| Froid South | Roosevelt | 10,377 | 34,659 | 3.34 | 26,053 | 83,568 |
| Gage | Musselshell | 1,404 | 4,127 | 2.94 | 554,750 | 957,343 |
| Gas City | Dawson | 268,018 | 911,261 | 3.40 | 7,883,072 | 20,851,811 |
| Girard | Richland | 21,789 | 72,993 | 3.35 | 176,963 | 544,934 |
| Glendive | Dawson | 283,867 | 945,277 | 3.33 | 9,716,645 | 22,356,701 |
| Goose Lake | Sheridan | 314,700 | 912,630 | 2.90 | 5,583,714 | 13,656,642 |
| Graben Coulee | Glacier | 80,188 | 234,950 | 2.93 | 941,706 | 2,288,385 |
| Gypsy Basin | Pondera | 6,075 | 15,977 | 2.63 | 173,427 | 371,059 |
| Hay Creek | Richland | 87,231 | 299,202 | 3.43 | 685,731 | 2,151,564 |
| Hiawatha | Musselshell | 64,154 | 207,217 | 3.23 | 1,016,038 | 2,765,788 |
| Hibbard | Rosebud | 2,118 | 6,883 | 3.25 | 149,194 | 307,176 |
| Injun Creek | Rosebud | 435 | 1,348 | 3.10 | 23,038 | 59,061 |
| Ivanhoe | Musselshell | 38,171 | 124,055 | 3.25 | 4,232,705 | 9,506,830 |
| Jim Coulee | Musselshell | 476,508 | 1,520,060 | 3.19 | 1,086,536 | 3,331,692 |
| Keg Coulee | Musselshell | 262,297 | 844,596 | 3.22 | 4,138,429 | 10,664,837 |
| Keg Coulee North | Musselshell | 35,622 | 120,046 | 3.37 | 213,934 | 568,934 |
| Kelley | Musselshell | 62,524 | 206,329 | 3.30 | 683,505 | 1,897,035 |
| Kevin Sunburst | Toole | 268,239 | 812,764 | 3.03 | 70,947,428 | 116,790,851 |
| Laird Creek | Liberty | 31,434 | 96,188 | 3.06 | 369,926 | 958,313 |
| Landslide Butte | Glacier | 5,475 | 18,177 | 3.32 | 12,209 | 38,434 |
| Leary | Powder River | 29,032 | 102,482 | 3.53 | 150,087 | 488,934 |
| Little Beaver | Fallon | 466,652 | 1,525,952 | 3.27 | 6,247,120 | 15,687,201 |
| Little Beaver East | Fallon | 143,961 | 466,433 | 3.24 | 3,616,407 | 8,948,423 |
| Little Wall Creek | Musselshell | 39,646 | 122,506 | 3.09 | 129,849 | 385,090 |
| Lodge Grass | Big Horn | 7,490 | 18,200 | 2.43 | 204,543 | 368,730 |
| Lonetree Creek | Richland | 286,746 | 1,003,611 | 3.50 | 1,013,177 | 3,400,833 |
| Lookout Butte-Coral Creek | Fallon | 680,423 | 2,245,395 | 3.30 | 15,200,512 | 39,036,444 |
| Mason Lake | Musselshell | 4,893 | 16,538 | 3.38 | 145,318 | 381,667 |
| Melstone | Musselshell | 22,872 | 69,073 | 3.02 | 1,636,361 | 3,818,262 |
| Mineral Bench | Roosevelt | 6,016 | 18,469 | 3.07 | 136,488 | 338,286 |
| Miner's Coulee | Toole | 4,026 | 13,567 | 3.37 | 111,418 | 280,392 |
| Monarch | Fallon | 162,028 | 497,425 | 3.07 | 8,403,122 | 8,440,662 |
| Mosser | Yellowstone | 4,266 | 11,176 | 2.62 | 252,334 | 436,443 |
| Nohly | Richland | 116,612 | 416,304 | 3.57 | 271,698 | 928,088 |
| Otis Creek | Richland | 77,505 | 279,793 | 3.61 | 239,126 | 795,151 |
| Outlook | Sheridan | 180,343 | 582,507 | 3.23 | 6,009,929 | 14,499,046 |
| Outlook South | Sheridan | 4,432 | 14,536 | 3.28 | 606,976 | 1,404,524 |
| Outlook West | Sheridan | 28,948 | 96,107 | 3.32 | 475,682 | 1,223,814 |
| Pennel-Lookout Butte | Fallon | 2,256,977 | 7,628,582 | 3.38 | 27,355,567 | 72,329,335 |
| Pine | Dawson, Fallon, Prairie, Wibaux | 2,884,405 | 9,633,912 | 3.34 | 75,679,936 | 196,122,835 |
| Pondera | Pondera, Teton | 280,870 | 859,462 | 3.06 | 19,732,719 | 39,704,827 |
| Pondera Coulee | Teton | 360 | 1,173 | 3.26 | 22,460 | 54,510 |
| Poplar | Roosevelt | 512,646 | 1,814,766 | 3.54 | 40,748,085 | 106,355,656 |
| Poplar Northwest | Roosevelt | 13,885 | 44,987 | 3.24 | 480,407 | 1,215,792 |
| Prairie Elk | McCone | 154 | 478 | 3.11 | 31,698 | 75,986 |
| Pritchard Creek | Toole | 7,392 | 23,432 | 3.17 | 58,156 | 169,844 |
| Putnam | Richland | 97,957 | 347,747 | 3.55 | 267,150 | 889,366 |
| Rabbit Hills | Blaine | 60,098 | 124,402 | 2.07 | 66,690 | 137,190 |
| Ragged Point | Musselshell | 154,670 | 498,037 | 3.22 | 2,378,814 | 5,905,561 |
| Rattlesnake Coulee | Toole | 4,337 | 14,095 | 3.25 | 63,548 | 168,797 |
| Raymond | Sheridan | 393,564 | 1,342,053 | 3.41 | 675,418 | 2,218,619 |
| Reagan | Glacier | 186,958 | 620,700 | 3.32 | 5,496,103 | 15,469,413 |
| Red Creek | Glacier | 176,042 | 512,282 | 2.91 | 4,592,457 | 10,191,848 |
| Red Fox | Roosevelt | 7,961 | 27,943 | 3.51 | 334,625 | 928,250 |
| Redstone | Sheridan | 13,191 | 42,079 | 3.19 | 367,950 | 958,679 |
| Repeat | Carter | 10,290 | 28,194 | 2.74 | 393,506 | 806,154 |
| Reserve | Sheridan | 58,684 | 194,244 | 3.31 | 1,031,170 | 2,843,509 |
| Richey | Dawson, McCone | 8,220 | 27,619 | 3.36 | 1,845,898 | 4,005,424 |
| Richey Southwest | McCone | 15,091 | 47,838 | 3.17 | 1,797,225 | 4,287,937 |
| Rough Creek | Powder River | 275 | 814 | 2.96 | 3,599 | 10,583 |
| Rush Mountain | Sheridan | 28,514 | 95,521 | 3.35 | 228,657 | 688,319 |
| Salt Lake | Sheridan | 41,302 | 144,970 | 3.51 | 137,107 | 450,987 |
| Sand Creek | Dawson | 21,236 | 70,715 | 3.33 | 2,037,950 | 6,134,849 |
| Second Creek | Richland | 116,085 | 427,192 | 3.68 | 119,656 | 438,833 |
| Sioux Pass | Richland | 224,258 | 567,372 | 2.53 | 224,258 | 567,372 |
| Snyder (Hardin) | Big Horn | 5,911 | 13,477 | 2.28 | 387,641 | 527,604 |
| Soap Creek | Big Horn | 49,250 | 105,887 | 2.15 | 1,749,018 | 2,404,784 |
| Spring Lake | Richland | 18,000 | 50,580 | 2.81 | 580,037 | 1,496,789 |
| Stensvad | Musselshell, Rosebud | 543,468 | 1,798,879 | 3.31 | 9,578,198 | 22,759,681 |
| Sumatra | Rosebud | 1,208,520 | 3,939,775 | 3.26 | 26,810,234 | 67,691,619 |
| Tule Creek | Roosevelt | 229,003 | 780,900 | 3.41 | 6,340,188 | 16,731,259 |
| Tule Creek East | Roosevelt | 70,976 | 249,835 | 3.52 | 1,833,483 | 4,892,612 |
| Tule Creek South | Roosevelt | 29,665 | 95,817 | 3.23 | 577,500 | 1,542,251 |
| Vida | McCone | 9,722 | 27,513 | 2.83 | 228,079 | 556,049 |
| Volt | Roosevelt | 120,894 | 392,905 | 3.25 | 1,651,719 | 4,230,883 |
| Weed Creek | Yellowstone | 5,513 | 18,578 | 3.37 | 538,606 | 1,447,712 |
| Weldon | McCone | 71,063 | 225,980 | 3.18 | 6,782,003 | 16,801,927 |
| West Butte | Toole | 14,484 | 46,928 | 3.24 | 158,638 | 444,958 |
| Whitlash | Liberty | 141,689 | 446,320 | 3.15 | 3,320,897 | 7,975,239 |
| Whitlash West | Toole | ...... | ...... | ...... | 55,367 | 127,216 |
| Willow Creek North | Musselshell | 34,398 | 110,417 | 3.21 | 195,757 | 549,385 |
| Wills Creek South | Fallon | 28,811 | 95,076 | 3.30 | 645,732 | 1,671,867 |
| Wolf Springs | Yellowstone | 18,960 | 59,724 | 3.15 | 4,447,917 | 10,848,077 |
| Woodrow | Dawson | 27,630 | 92,007 | 3.33 | 894,603 | 2,282,310 |
| Wright Creek | Powder River | 15,244 | 51,677 | 3.39 | 142,701 | 432,473 |
| Wildcat | Blaine | ...... | ...... | ...... | 8,539 | 13,196 |
| Wildcat | Carbon | ...... | ...... | ...... | 6,368 | 13,559 |
| Wildcat | Daniels | ...... | ...... | ...... | 25,215 | 67,031 |
| Wildcat | Fallon | ...... | ...... | ...... | 119,796 | 330,637 |
| Wildcat | Glacier | ...... | ...... | ...... | 70,772 | 190,971 |
| Wildcat | Liberty | ...... | ...... | ...... | 2,198 | 5,647 |
| Wildcat | McCone | 2,155 | 7,822 | 3.63 | 12,100 | 38,463 |
| Wildcat | Musselshell | 32,007 | 100,822 | 3.15 | 32,932 | 102,663 |
| Wildcat | Powder River | ...... | ...... | ...... | 27,445 | 65,594 |
| Wildcat | Richland | ...... | ...... | ...... | 802,351 | 2,217,536 |
| Wildcat | Roosevelt | 9,255 | 23,970 | 2.59 | 254,145 | 696,440 |
| Wildcat | Sheridan | ...... | ...... | ...... | 38,366 | 92,591 |
| Wildcat | Stillwater | ...... | ...... | ...... | 11,283 | 13,365 |
| Wildcat | Toole | 5,225 | 15,152 | 2.90 | 60,245 | 159,684 |
| Wildcat | Wibaux | ...... | ...... | ...... | 8,388 | 25,416 |
| Miscellaneous Abandoned Fields | | ...... | ...... | ...... | 7,578,840 | 14,680,583 |
| TOTALS | | 34,620,182 | 115,422,832 | ...... | 824,964,146 | 1,960,514,714 |

# GENERALIZED STRATIGRAPHIC CORRELATION CHART

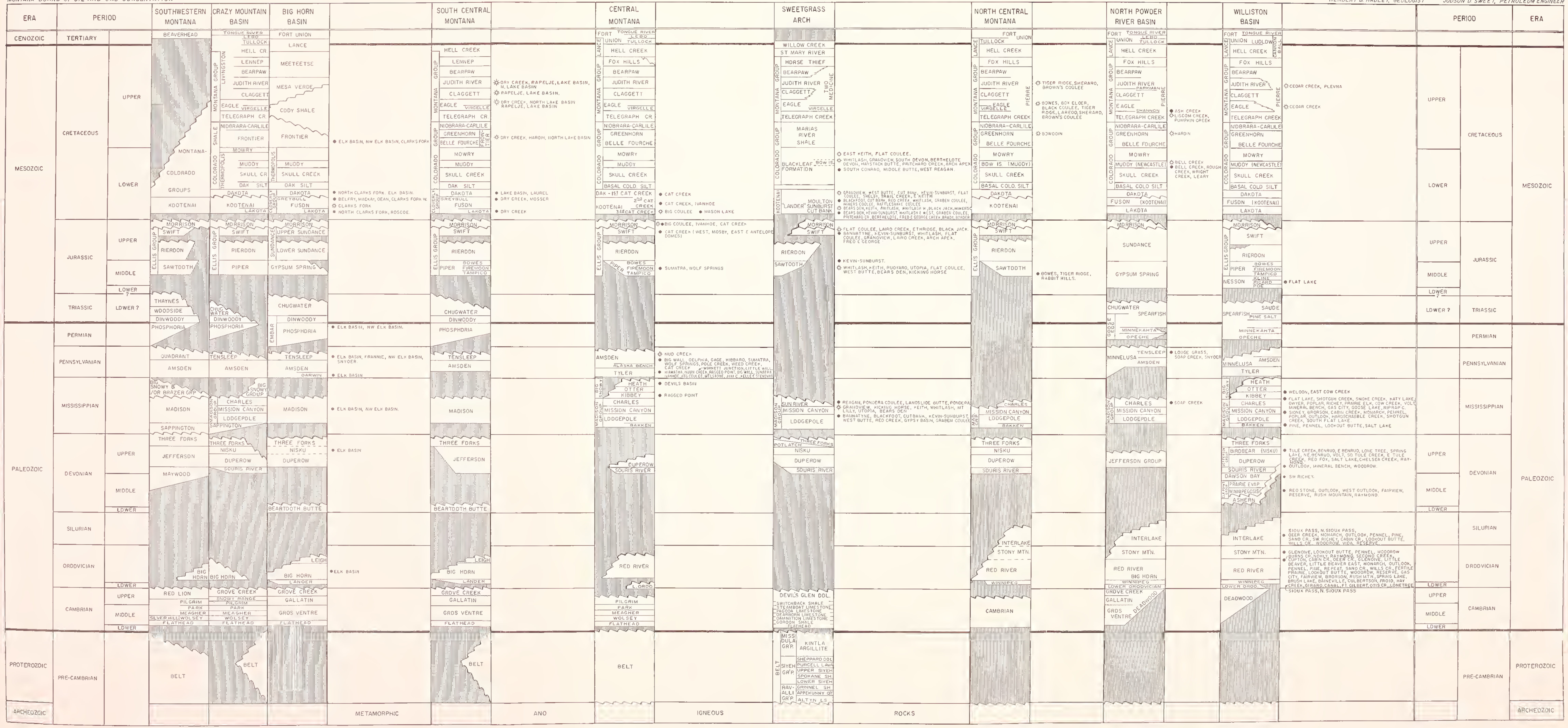
SHOWING PRODUCTIVE FORMATIONS IN MONTANA OIL AND GAS FIELDS *

● OIL ☼ GAS

1973

*MONTANA BOARD OF OIL AND GAS CONSERVATION*

*HERBERT D. HADLEY, GEOLOGIST* *JUDSON D. SWEET, PETROLEUM ENGINEER*



* SOME FIELDS SHOWN ARE DEPLETED OR NOT PRODUCTIVE